## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

### Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.00	Rating **	Α	Issue No.		121	
LM End	0.00	Issue Type +	Ma	Location * N/A			
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item		s & Maintena	nce		0		0
пеш	Manuals				0		0
DWR ID DWR_RD0524_01_s _ 2012_121							
		Comn	nent Cod	de			
		Inspecto	or Comm	nent			
The RD ha	as a digital	copy of the O	&M mar	nual.			

No Photos

Rating \*\* Issue No. 0.00 М 123 LM Start 0.00 Issue Type + Ма Location \* N/A LM End Earthen Levee GPS Latitude/Longitude Category Start End Flood Preparedness & Training Item DWR\_RD0524\_01\_s \_ 2012\_123 DWR ID Comment Code Inspector Comment No recent training.

No Photos

Rating \*\* Issue No. 138 LM Start 0.00 Location \* 0.00 Issue Type + Ma N/A LM End GPS Latitude/Longitude Earthen Levee Category End **Emergency Supplies &** Item Equipment DWR ID DWR\_RD0524\_01\_s \_ 2013\_138 Comment Code Inspector Comment The LMA does not appear to have emergency supplies or equipment.

No Photos

\* Location LS: Land Side N/A: I WS: Water Side

N/A: Not Applicable

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N : Not Inspected/Rated C : Corrected + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.14	Rating **	Α	Issue No.	237		
LM End	0.14	Issue Type +	Ma	Location *	WS		
Category Earthen Levee			GPS La	atitud	le/Longitude		
			Start		End		
Item	Animal Co	ontrol		37.9397	74°	37.939774°	
item				-121.3444	90°	-121.344490 °	
DWR ID DWR_RD0524_01_f _ 2017_237							
Comment Code							

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

LMA backfilled rodent hole, but no rodent program visible.

LM Start	0.14	Rating **	Α	Issue No.	237 (cont)
LM End	0.14	Issue Type +	Ma	Location *	WS

## Photo 1 of 4 : FA\_2018\_RD0524\_107\_237\_20180906\_00329.jpg



Looking northwest at the waterside slope.

#### Photo 2 of 4: FA\_2018\_RD0524\_107\_237\_20180919\_00466.jpg



Looking at site stalking on waterward shoulder.(Fall 2018)

LM Start	0.14	Rating **	Α	Issue No.	237 (cont)
LM End	0.14	Issue Type +	Ma	Location *	WS



Looking southeast at backfill of rodent holes on waterward slope. (Fall 2018)

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.14	Rating **	Α	Issue No.		237 (cont)	
LM End	0.14	Issue Type +	Ма	Location *		WS	
Cotagon Earthen Levee			GPS Latitude/Longitude				
Calegory	Category			Start		End	
Item	Animal Co	ontrol		37.9397	74°	37.939774°	
пеш			-121.3444	90°	-121.344490 °		
DWR ID DWR_RD0524_01_f _ 2017_237							
Comment Code							

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

LMA backfilled rodent hole, but no rodent program visible.

#### Photo 4 of 4: FA\_2018\_RD0524\_107\_237\_20180919\_00467.jpg



Looking east at backfill on waterward slope. (Fall 2018)

LM Start	0.19	Rating **	U	Issue No.		1
LM End	0.19	Issue Type +	Ma	Location *		WS
Category Supplemental				GPS Latitude/Longitude		
				Start		End
Item	DWR Ero	sion Survey		37.9390	85°	37.939085°
пеш			-121.343917°		-121.343917°	
DWR ID	RD0524U0	1RM40.85				·

## Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: The erosion was discovered during 2013 spring levee inspection. Inspector comment: Erosion is located along the lower level of water-ward slope. [2017 Site ID:RD0524U01RM40.85]

## Photo 1 of 3 : FA\_2018\_RD0524\_107\_1\_20180906\_00001.jpg



Close view of the erosion.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.19	Rating **	U	Issue No.		1 (cont)	
LM End	0.19	Issue Type +	Ма	Location *		WS	
Category			GPS Latitude/Longitude				
Category	Category			Start		End	
Item	DWR Ero	sion Survey		37.9390	85 °	37.939085 °	
пеш			-121.3439	17°	-121.343917°		
DWR ID	D RD0524U01RM40.85						
Comment Code							

## Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: The erosion was discovered during 2013 spring levee inspection. Inspector comment: Erosion is located along the lower level of water-ward slope. [2017 Site ID:RD0524U01RM40.85]

LM Start	0.19	Rating **	U	Issue No.	1 (cont)
LM End	0.19	Issue Type +	Ma	Location *	WS

## Photo 2 of 3: FA\_2018\_RD0524\_107\_1\_20180906\_00002.jpg



Front view of the erosion.

Photo 3 of 3: FA\_2018\_RD0524\_107\_1\_20180906\_00003.jpg



Front view of the erosion.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.21	Rating **	С	Issue No.		3
LM End	0.21	Issue Type +	Ma	Location *		CR
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Category				Start		End
Item	Crown Surface / Depressions /		ssions /	37.9388	90°	37.938890°
пеш	Rutting	ng -121.3		-121.3436	57°	-121.343657°
DWR ID	DWR_RD0	524_01_s _ 201	6_3			
		Comn	nent Coc	de		
C2 : Repai	ir depressi	ons or ruts in	the crow	n or slope.		
		Inspecto	or Comm	nent		

No Photos

LM Start	0.23	Rating **	U	Issue No.		201	
LM End	0.23	Issue Type + Ma		Location *		WS	
Category	Earthen Levee			GPS Latitude/Longitude			
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.9386	48°	37.938648	0
пеш			-121.3434	80°	-121.343480	0	
DWR ID	DWR_RD0	524_01_f _ 201					

#### Comment Code

T2: Thin trees to allow visibility of the ground and room to flood fight.

### Inspector Comment

Untrimmed trees on waterside slope.

#### Photo 1 of 1: FA\_2018\_RD0524\_107\_201\_20180906\_00266.jpg



Looking southeast a the waterside slope.

LM Start	0.27	Rating **	U	Issue No.		179
LM End	0.27	Issue Type +	Ма	Location *		WS
Category	Earthen L	evee		GPS Lat	itud	e/Longitude
Category				Start		End
Item	Trim / Thi	n Trees		37.93843	8 °	37.938438°
пеш				-121.342883 ° -121.342		-121.342883°
DWR ID	DWR_RD0	524_01_s _ 201	4_179			

#### Comment Code

T2: Thin trees to allow visibility of the ground and room to flood fight.

#### Inspector Comment

Tree blocking view of waterside slope.

## Photo 1 of 1: FA\_2018\_RD0524\_107\_179\_20180906\_00235.jpg



Looking east at untrimmed tree on waterward slope. (Fall 2016)

Location

N/A: Not Applicable

LS: Land Side WS: Water Side

A : Acceptable M : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

A/W : Acceptable but Monitor & Maintain

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.30	Rating **	С	Issue No.		174		
LM End	0.32	Issue Type +	Ма	Location *		WS		
Category	Earthen L	evee		GPS La	atitud	le/Longitude		
Category				Start		End		
Item	Animal Co	ontrol		37.9383	82 °	37.938412°		
пеш				-121.3423	52°	-121.341917°		
DWR ID	DWR_RD0	524_01_f _ 201	4_174					
		Comn	nent Cod	de				
A1 : Exterminate rodents and backfill and compact or grout burrows.						it burrows.		
	Inspector Comment							

Several rodent holes were present at this site which the District

backfilled.

No Photos

LM Start	0.34	Rating **	М	Issue No.	2		
LM End	0.34	Issue Type +	Ma	Location *	WS		
Category Supplemental			GPS Latitude/Longitude				
			Start		End		
Item	DWR Ero	sion Survey		37.9384	61 °	37.938461 °	
пеш				-121.3415	26°	-121.341526°	
DWR ID RD0524U01RM40.93					,		
	Comment Code						

#### Inspector Comment

09/13/2017: There are two pocket erosions at the site; both erosions are around 10 ft long and 6 ft high. [2017 Site ID:RD0524U01RM40.93]

		D // ++			
LM Start	0.34	Rating **	М	Issue No.	2 (cont)
LM End	0.34	Issue Type +	Ma	Location *	WS

# Photo 1 of 4 : FA\_2018\_RD0524\_107\_2\_20180906\_00004.jpg



Front view of the erosion site.

Photo 2 of 4: FA\_2018\_RD0524\_107\_2\_20180906\_00005.jpg



Looking downstream of the erosion.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.34	Rating **	М	Issue No.		2 (cont)	
LM End	0.34	Issue Type +	Ma	Location *	WS		
Category	Suppleme	ental		GPS La	atituc	de/Longitude	
Calegory				Start		End	
Item	DWR Erosion Survey			37.9384	61 °	37.938461 °	
iteiii				-121.3415	26°	-121.341526°	
DWR ID	RD0524U0	1RM40.93					
		Comn	nent Cod	de			
		Inspect	or Comm	nent			
09/13/2017: There are two pocket erosions at the site; both erosions are around 10 ft long and 6 ft high. [2017 Site ID:RD0524U01RM40.93]							

LM Start	0.34	Rating **	М	Issue No.	2 (cont)
LMEnd	0.24	Issue Type +	Ma	Location *	WS



Close view of the erosion site.

Photo 4 of 4: FA\_2018\_RD0524\_107\_2\_20180906\_00007.jpg



Front view of the erosion.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.40	Rating **	М	Issue No.	5	
LM End	0.40	Issue Type +	Ма	Location *	WS	
Category	Suppleme	Supplemental				le/Longitude
Calegory				Start		End
Item	DWR Ero	sion Survey		37.93887	° 0	37.938870°
пеш				-121.34046	° 0	-121.340460 °
DWR ID	RD0524U01RM40.99					
Comment Code						

## Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: More vegetation observed at the site.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed. 08/13/2013: No significant change at this site.

08/07/2012: The erosion is at the upper levee slope, and likely caused

, ,	[2017 Site ID:RD0524U01RM40.99]									
LM Start	0.40	Rating **	М	Issue No.	5 (cont)					
LM End	0.40	Issue Type +	Ma	Location *	WS					



Front view of the erosion site.

Photo 2 of 4: FA\_2018\_RD0524\_107\_5\_20180906\_00012.jpg



Downstream view of the site.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.40	Rating **	M	Issue No.	ssue No. 5 (cont)		
LM End	0.40	Issue Type +	Ма	Location *		WS	
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR Ero	sion Survey		37.9388	70°	37.938870°	
item				-121.3404	60°	-121.340460 °	
DWR ID	RD0524U01RM40.99						

#### Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: More vegetation observed at the site.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The erosion is at the upper levee slope, and likely caused by slope slip. The lower levee slope is covered with dense vegetation. [2017 Site ID:RD0524U01RM40.99]

LM Start	0.40	Rating **	М	Issue No.	5 (cont)
LM End	0.40	Issue Type +	Ma	Location *	WS



Close view of the erosion.

Photo 4 of 4: FA\_2018\_RD0524\_107\_5\_20180906\_00014.jpg



Close view of the erosion.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.40	Rating **	С	Issue No.		205			
LM End	0.46	Issue Type +	Ма	Location *	LS				
Category	Earthen L	evee		GPS La	atitud	e/Longitude			
Calegory			Start		End				
Item	Erosion / I		37.9386	25 °	37.938695 °				
пеш					79°	-121.339420 °			
DWR ID	DWR_RD0	524_01_s _ 201	6_205						
		Comn	nent Cod	de					
E2 : Scheo	dule repair	of erosion site	e prior to	the next in	spe	ction.			
	Inspector Comment								
Several damaged sites within this reach.									

No Photos

LM Start	0.41	Rating **	U	Issue No.	170			
LM End	0.45	Issue Type +	Ma	Location *	WS			
Category	Earthen L	GPS La	atitud	e/Longitude				
Calegory				Start		End		
Item	Erosion / Bank Caving			37.9386	28°	37.938688°		
пеш				-121.3403	85°	-121.339627°		
DWR ID DWR_RD0524_01_s _ 2015_170								

#### Comment Code

E2: Schedule repair of erosion site prior to the next inspection.

#### Inspector Comment

Several slope instabilites within this reach.

LM Start	0.41	Rating **	U	Issue No.	170 (cont)
I M End	0.45	Issue Type +	Ma	Location *	WS

#### Photo 1 of 2: FA\_2018\_RD0524\_107\_170\_20180906\_00221.jpg



Looking at slope damage on waterward shoulder (Spring 2016)

Photo 2 of 2: FA\_2018\_RD0524\_107\_170\_20180906\_00222.jpg



Looking at waterward slope erosion.

\* Location
LS: Land Side N/A: Not Applicable
WS: Water Side
CR: Crown

\*\* Rating

A: Acceptable
N: Not Inspected/Rated
M: Minimally Acceptable
U: Unacceptable
U: Unacceptable
A: Acceptable
CR: Crown

\*\* Rating

A: Acceptable
N: Not Inspected/Rated
C: Corrected
C: Corrected
A/W: Acceptable but Monitor & Maintain

\*\* Assue Type

Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.63	Rating **	U	Issue No.	11	
LM End	0.64	Issue Type +	Ма	Location *	WS	
Category Earthen Levee			GPS Latitude/Longitude			
Category		Start		End		
Item	Vegetatio	n		37.9382	32 °	37.938160°
пеш				-121.3364	84°	-121.336357°
DWR ID DWR_RD0524_01_s _ 2012_11						
Comment Code						

 $\ensuremath{\text{V2}}$  : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

Bamboo on waterside slope. Bamboo is dead but blocking view.

LM Start	0.63	Rating **	U	Issue No.	11 (cont)
LM End	0.64	Issue Type +	Ma	Location *	WS

#### Photo 1 of 2: FA\_2018\_RD0524\_107\_11\_20180906\_00016.jpg



Looking at bamboo on waterward slope. (Spring 2018)

Photo 2 of 2: FA\_2018\_RD0524\_107\_11\_20180906\_00017.jpg



Looking southeast at the waterside slope.

LM Start	0.63	Rating **	М	Issue No.		15
LM End	0.63	Issue Type +	Ма	Location *	WS	
Category			GPS La	titud	le/Longitude	
Calegory				Start		End
Item	DWR Ero	sion Survey		37.93824	17°	37.938247°
item				-121.33650	)3°	-121.336503 °
DWR ID	RD0524U0	1RM41.26				
Comment Code						

#### Inspector Comment

09/13/2017: The erosion was discovered by levee inspection. The erosion site is immediately downstream of tall vegetations. [2017 Site ID:RD0524U01RM41.26]

## Photo 1 of 2 : FA\_2018\_RD0524\_107\_15\_20180906\_00024.jpg



Front view of the erosion. The erosion is located at the shadow of the vegetation.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.63	0.63 Rating ** M			Issue No.			
LM End	0.63	Issue Type +	Ma	Location *	WS			
Supplemental Supplemental				GPS Latitude/Longitude				
Calegory	Category				Start		End	
Item	DWR Ero	sion Survey		37.9382	47°	37.938247	•	
пеш				-121.3365	03°	-121.336503	0	
DWR ID RD0524U01RM41.26								
Comment Code								

## Inspector Comment

09/13/2017: The erosion was discovered by levee inspection. The erosion site is immediately downstream of tall vegetations. [2017 Site ID:RD0524U01RM41.26]

## Photo 2 of 2: FA\_2018\_RD0524\_107\_15\_20180906\_00025.jpg



Front view of the erosion.

LM Start	0.64	Rating **	С	Issue No.		13
LM End	0.65	Issue Type +	Ma	Location *	WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Calegory				Start		End
Item	Slope Sta	bility		37.9381	05°	37.938023°
iteiii				-121.3362	88°	-121.336173°
DWR ID	DWR_RD0	524_01_s _ 201	2_13			

#### Comment Code

S1: Repair slope instability.

#### Inspector Comment

Depression extends from shoulder to mid levee slope two site with this section.

No Photos

	LM Start	0.67	Rating **	U	Issue No.		14	
	LM End	0.67	Issue Type +	Ma	Location *		WS	
Category Earthen Levee				GPS La	atitud	e/Longitude		
	Calegory				Start		End	
	Item	Vegetatio	n		37.9378	08°	37.937808	0
	item				-121.3359	13°	-121.335913	0
	DWR ID	DWR RD0	524 01 s 201	2 14				Т

#### Comment Code

V2: Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

Bamboo on waterside slope.Bamboo is dead but blocking view.

#### Photo 1 of 1: FA\_2018\_RD0524\_107\_14\_20180906\_00023.jpg



Looking south at dying bamboo on waterward slope. Fall 2015

\* Location N/A: Not Applicable LS: Land Side

WS: Water Side

: Acceptable : Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence

A/W : Acceptable but Monitor & Maintain En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.70	Rating **	М	Issue No.		16
LM End	0.70	Issue Type +	Ма	Location *		WS
Category	Suppleme	ental		GPS La	atitud	e/Longitude
Calegory				Start		End
Item	DWR Erosion Survey			37.9375	77°	37.937577°
item		-121.33549				-121.335491 °
DWR ID	RD0524U0	1RM41.34				
		Comn	nent Cod	de		
		Inspecto	or Comm	nent		
09/13/2017: Pocket erosion above the protected levee toe. [2017 Site ID:RD0524U01RM41.34]						

LM Start	0.70	Rating **	М	Issue No.	16 (cont)
LM End	0.70	Issue Type +	Ma	Location *	WS



Front view of the erosion.

Photo 2 of 4: FA\_2018\_RD0524\_107\_16\_20180906\_00027.jpg



Close view of the erosion.

Photo 3 of 4: FA\_2018\_RD0524\_107\_16\_20180906\_00028.jpg

LM Start	0.70	Rating **	М	Issue No.	16 (cont)
LM End	0.70	Issue Type +	Ma	Location *	WS



Looking downstream of the erosion site.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

### Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.70	Rating **	М	Issue No.		16 (cont)		
LM End	0.70	Issue Type +	Ма	Location *		WS		
Category				GPS Latitude/Longitude				
Calegory				Start		End		
ltom	Item DWR Erosion Survey			37.937577°		37.937577°		
пеш				-121.335491°		-121.335491 °		
DWR ID	RD0524U0	1RM41.34						
Comment Code								

#### Inspector Comment

09/13/2017: Pocket erosion above the protected levee toe. [2017 Site ID:RD0524U01RM41.34]



Close view of the erosion.

LM Start	0.70	Rating **	A/W	Issue No.		153
LM End	0.70	Issue Type +	Ma	Location *		
Category	ental	GPS Latitude/Longitude				
Calegory				Start		End
ltom	2017 Stor	m Damage		37.9375	00°	37.937500°
Item				-121.3355	00°	-121.335500°
DWR ID	DWR_RD0	524_01_f _ 201	7_153			·

## Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:541

Site Designation:LMA-447

Repair Type: Erosion Rating: Area of Concern

Field Date:8/10/2017

Notes:





N/A: Not Applicable LS: Land Side WS: Water Side

: Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

### Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.70	Rating **	A/W	Issue No.		153 (cont)
LM End	0.70	Issue Type +	Ma	Location *		
Category	Suppleme		GPS La	titud	le/Longitude	
Calegory				Start		End
Item	2017 Stor	m Damage		37.9375	00°	37.937500°
пеш				-121.33550	00°	-121.335500°
DWR ID	DWR_RD0	524_01_f _ 201	7_153			

#### Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:541

Site Designation:LMA-447 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:

LM Start	0.70	Rating **	A/W	Issue No.	153 (cont)
LM End	0.70	Issue Type +	Ма	Location *	



Photo 3 of 3: LEVAL\_FA\_2018\_541\_4083.jpg



## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.71	Rating **	М	Issue No.	17			
LM End	0.73	Issue Type +	Ma	Location *	WS			
Category	Supplemental				GPS Latitude/Longitude			
Calegory			Start		End			
Itom	DWR Ero	37.9372	22 °	37.937222°				
пеш	Item			-121.3352	77°	-121.335277°		
DWR ID	RD0524U0	1RM41.36						
Comment Code								

Inspector Comment

09/13/2017: No significant change observed. 07/25/2016: No significant change observed.

06/24/2015: The erosion site is immediately downstream of the RR

bridge. [2017 Site ID:RD0524U01RM41.36]

LM Start	0.71	Rating **	М	Issue No.	17 (cont)
LM End	0.73	Issue Type +	Ma	Location *	WS



Front view of the erosion.

Photo 2 of 3: FA\_2018\_RD0524\_107\_17\_20180906\_00031.jpg



Close view of the erosion.

Photo 3 of 3: FA\_2018\_RD0524\_107\_17\_20180906\_00032.jpg

LM Start	0.71	Rating **	М	Issue No.	17 (cont)
LM End	0.73	Issue Type +	Ma	Location *	WS



Close view of the erosion.

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable C: Corrected C: Corrected C: Corrected A/W: Acceptable but Monitor & Maintain

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.72	Rating **	U	Issue No.		157	
LM End	0.72	Issue Type +	Ma	Location *		LS	
Category Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End	
Item	Erosion / Bank Caving			37.9372	90°	37.937290°	
item			-121.335417 °		-121.335417°		
DWR ID	DWR_RD0524_01_s _ 2017_157						
Comment Code							

#### Inspector Comment

Slope damage caused by rain runoff on landside slope.

LM Start	0.72	Rating **	U	Issue No.	157 (cont)
LM End	0.72	Issue Type +	Ma	Location *	LS



Looking south at slope damage caused by rain runoff on landward slope.

#### Photo 2 of 2: FA\_2018\_RD0524\_107\_157\_20180906\_00211.jpg



Looking west at slope damage caused by rain runoff on landward slope.

LM Start	0.72	Rating **	М	Issue No.		156	
LM End	0.72	Issue Type +	Ma	Location *	LS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.9372	258°	37.937258°	
item	3111				873°	-121.335373°	
DWR ID	DWR ID DWR_RD0524_01_s _ 2017_156						
		Comn	nent Cod	de			
T1 : Trim t	rees to at	east five feet	above g	round level			
		Inspecto	or Comm	nent			
Dense vegetation on landside slope.							



Looking southwest at the landside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.72	Rating **	М	Issue No.	156 (cont)		
LM End	0.72	Issue Type +	Ma	Location *	LS		
Category	Earthen Levee			GPS La	atitud	e/Longitude	
Calegory		Start		End			
Trim / Thin Trees			37.9372	:58°	37.937258		
пеш				-121.335373 °		-121.335373	
DWR ID	ID DWR_RD0524_01_s _ 2017_156						
		Comn	nent Cod	de			
T1 : Trim t	rees to at	east five feet	above g	round level			
		Inspecto	or Comm	nent			
Dense veg	etation on	landside slop	e.				



Looking west at dense untrimmed tree on landward slope.

LM Start	0.72	Rating **	A/W	Issue No.	154		
LM End	0.73	Issue Type +	Ma	Location *			
Category	Suppleme	ental		GPS La	titud	le/Longitude	
Calegory				Start		End	
Item	2017 Storm Damage			37.9372	00°	37.937100°	
item			-121.33530	00°	-121.335300°		
DWR ID	DWR_RD0	524_01_f _ 201	7_154				
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:540

Site Designation:LMA-446

Repair Type: Erosion Rating:Area of Concern

Field Date:8/10/2017

Notes:



U : Unacceptable

N : Not Inspected/Rated C : Corrected + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

### Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.72	Rating **	A/W	Issue No.	154 (cont)		
LM End	0.73	Issue Type +	Ma	Location *			
Catagory	Category				GPS Latitude/Longitude		
Category				Start		End	
Item	2017 Stor	m Damage		37.93720	00°	37.937100°	
пеш				-121.33530	00°	-121.335300°	
DWR ID	DWR_RD0524_01_f _ 2017_154						
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:540 Site Designation:LMA-446 Repair Type: Erosion Rating:Area of Concern

Field Date:8/10/2017 Notes:

LM Start	0.72	Rating **	A/W	Issue No.	154 (cont)
LM End	0.73	Issue Type +	Ма	Location *	



Photo 3 of 3: LEVAL\_FA\_2018\_540\_4089.jpg



LS : Land Side N/A : Not Applicab
WS : Water Side

\* Rating
A: Acceptable
M: Minimally Acceptable

U : Unacceptable

N : Not Inspected/Rated C : Corrected + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.75	Rating **	U	Issue No.	262		
LM End	0.78	Issue Type +	Ma	Location *	LS		
Category Earthen Levee				GPS La	atitud	e/Longitude	
Calegory		Start		End			
Item	Vegetatio	egetation			37.936813°		0
пеш			-121.335019°		-121.334863	0	
DWR ID	DWR_RD0	524_01_s _ 201	2_262				
		Comn	nent Cod	de			
V2 : Remove the wild growth other than native grasses from the levee slopes.							
Inspector Comment							

Dense vegetation at landside toe along fence line.

LM Start	0.75	Rating **	U	Issue No.	262 (cont)
LM End	0.78	Issue Type +	Ma	Location *	LS



Looking northeast at the landside slope.

Photo 2 of 3: FA\_2018\_RD0524\_107\_262\_20180906\_00348.jpg



Looking west at dense vegetation at landward slope and toe fall 2015.

LM Start	0.75	Rating **	U	Issue No.	262 (cont)
LM End	0.78	Issue Type +	Ma	Location *	LS



Looking west at dense vegetation on landside toe. Spring 2014

\*Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Maintenance Deficiancy Ob: Design & System Obsolescence

CR: Crown

\*\* Rating

A: Acceptable C: Corrected Ob: Design & System Obsolescence

U: Unacceptable A/W: Acceptable but Monitor & Maintain

\*\* Rating

A: Acceptable M: N: Not Inspected/Rated Ob: Design & System Obsolescence

C: Corrected Ob: Design & System Obsolescence

En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.76	Rating **	U	Issue No.	21		
LM End	0.77	Issue Type +	Ма	Location *	WS		
Category	ental	GPS Latitude/Longitude					
Category	Category					End	
Item	DWR Ero	sion Survey		37.93682	21 °	37.936821 °	
пеш				-121.33458	32 °	-121.334582°	
DWR ID	DWR ID RD0524U01RM41.39						
Comment Code							

## Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

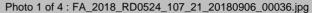
06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. No significant change observed.

08/23/2011: The site is located immediately upstream of a Railroad bridge. Dense vegetation at the water line blocks the view of erosion. [2017 Site ID:RD0524U01RM41.39]

LM Start	0.76	Rating **	U	Issue No.	21 (cont)
LM End	0.77	Issue Type +	Ma	Location *	WS





Front view of the erosion site.

Photo 2 of 4: FA\_2018\_RD0524\_107\_21\_20180906\_00037.jpg



Front view of the erosion site. Vegetation is visible.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.76	Rating **	U	Issue No.		21 (cont)	
LM End	0.77	Issue Type +	Ма	Location *	Location *		
Category	Supplemental				GPS Latitude/Longitude		
Calegory				Start		End	
Item	DWR Ero	sion Survey		37.93682	1°	37.936821°	
пеш			-121.33458	2°	-121.334582°		
DWR ID	RD0524U01RM41.39						

#### Inspector Comment

Comment Code

09/13/2017: No significant change observed.

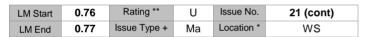
07/25/2016: No significant change observed.

06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. No significant change observed.

08/23/2011: The site is located immediately upstream of a Railroad bridge. Dense vegetation at the water line blocks the view of erosion. [2017 Site ID:RD0524U01RM41.39]



#### Photo 3 of 4: FA\_2018\_RD0524\_107\_21\_20180906\_00038.jpg



Front view of the erosion.

#### Photo 4 of 4: FA\_2018\_RD0524\_107\_21\_20180906\_00039.jpg



Front view of the erosion.

Page 23 of 129

#### Flood Control Project Maintenance Levee Inspections

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

		D (' ++		I NI					
LM Start	0.78	Rating **	U	Issue No.		76			
LM End	0.78	Issue Type +	Ma	Location *		LS			
Category	Earthen L	evee		GPS La	atitud	e/Longitude			
Category				Start		End			
Item	Trim / Thi	n Trees		37.9364	44°	37.936444°			
пеш				-121.3347	'97 °	-121.334797°			
DWR ID	DWR_RD0	524_01_s _ 201	2_76						
		Comn	nent Cod	de					
T1: Trim t	rees to at I	east five feet	above g	round level					
		Inspecto	or Comm	nent					



Looking southwest at low hanging tree branches at landside toe.

LM Start	0.79	Rating **	U	Issue No.		239	
LM End	0.79	Issue Type +	Ma	Location *		WS	
Catagony	evee	GPS La	atitud	e/Longitude			
Category				Start		End	
Item	Animal Co	ontrol		37.9364	13°	37.936413°	
iteiii			-121.3347	79°	-121.334779°		
DWR ID	DWR_RD0524_01_f _ 2017_239						

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment



Looking west at the waterside shoulder.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.79	Rating **	М	Issue No.		155
LM End	0.80	Issue Type +	Ма	Location *		
Category	Suppleme	ental	GPS Latitude/Longitude			
Calegory				Start		End
Item	2017 Stor	m Damage		37.93630	00°	37.936200°
пеш			-121.33470	00°	-121.334600 °	
DWR ID	DWR_RD0524_01_f _ 2017_155					

#### Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:538

Site Designation:LMA-444 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:

LM Start	0.79	Rating **	М	Issue No.	155 (cont)
LM End	0.80	Issue Type +	Ма	Location *	



Photo 2 of 3: LEVAL\_FA\_2018\_538\_4098.jpg



## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

### Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.79	Rating **	М	Issue No.		155 (cont)	
LM End	0.80	Issue Type +	Ma	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory				Start	End		
Item	2017 Stor	m Damage		37.9363	00°	37.936200°	
пеш			-121.334700 ° -121.33				
DWR ID DWR_RD0524_01_f _ 2017_155							
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:538

Site Designation:LMA-444 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:



LM Start	0.83	Rating **	U	Issue No.		22
LM End	0.84	Issue Type +	Ma	Location *	WS	
Category Supplemental			GPS La	tituc	le/Longitude	
Calegory				Start		End
Item	DWR Eros	sion Survey		37.93593	30°	37.935930°
iteiii				-121.33413	33°	-121.334133 °
DWR ID	RD0524U0	1RM41.44				

#### Comment Code

#### Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: Site was discovered during boat survey. The dense vegetation blocks a clear view of the erosion. Size of erosion site was very roughly estimated. [2017 Site ID:RD0524U01RM41.44]

#### Photo 1 of 2: FA\_2018\_RD0524\_107\_22\_20180906\_00040.jpg



Front view of the erosion. The tree and vegetation block the view of the

Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.83	Rating **	U	Issue No.	No. 22 (cont)		
LM End	0.84	Issue Type +	Ma	Location *	WS		
Supplemental				GPS Latitude/Longitude			
Calegory			Start		End		
Item	DWR Ero	sion Survey		37.9359	30°	37.935930°	
пеш		-121.334133 ° -121.334					
DWR ID RD0524U01RM41.44							
Comment Code							

#### Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: Site was discovered during boat survey. The dense vegetation blocks a clear view of the erosion. Size of erosion site was very roughly estimated. [2017 Site ID:RD0524U01RM41.44]

## Photo 2 of 2: FA\_2018\_RD0524\_107\_22\_20180906\_00041.jpg



Close view of the erosion site.

LM Start	0.90	Rating **	U	Issue No.		149
LM End	0.90	Issue Type +	Ма	Location *	ocation * W	
Category	Earthen Levee			GPS Latitude/Longitude		
Calegory			Start		End	
Item	Trim / Thi	n Trees		37.9353	19°	37.935319°
пеш				-121.3334	06°	-121.333406°
DWR ID DWR_RD0524_01_s _ 2018_149						·

Comment Code

T2: Thin trees to allow visibility of the ground and room to flood fight.

Inspector Comment



Looking southeast at untrimmed trees on waterward slope. (Spring 2018)

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

### Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.90	Rating **	A/W	Issue No.	193		
LM End	0.91	Issue Type +	Ma	Location *			
Supplemental				GPS Latitude/Longitude			
Category						End	
Item	2017 Stor	m Damage		37.9354	00°	37.935300°	
пеш				-121.3333	00°	-121.333200°	
DWR ID DWR_RD0524_01_f _ 2017_193							
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:537

Site Designation:LMA-443 Repair Type: Erosion

Repair Type: Erosion Rating:Serious Field Date:8/10/2017

Notes:

LM Start	0.90	Rating **	A/W	Issue No.	193 (cont)
LM End	0.91	Issue Type +	Ма	Location *	



Photo 2 of 3: LEVAL\_FA\_2018\_537\_4103.jpg



## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.90	Rating **	A/W	Issue No.	193 (cont)		
LM End	0.91	Issue Type +	Ma	Location *			
Supplemental				GPS Latitude/Longitude			
Calegory				Start		End	
Item	2017 Stor	m Damage		37.9354	00°	37.935300°	
пеш			-121.3333	00°	-121.333200°		
DWR ID DWR_RD0524_01_f _ 2017_193							
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:537

Site Designation:LMA-443 Repair Type: Erosion Rating:Serious Field Date:8/10/2017

Notes:



LM Start	0.91	Rating **	A/W	Issue No.		187		
LM End		Issue Type +	Ma	Location *				
Category			GPS Latitude/Longitude					
Calegory			Start		End			
Item	2017 Stor	m Damage		37.93558	o°		0	
пеш				-121.33320			0	
DWR ID DWR_RD0524_01_f _ 2017_187								
Comment Code								

#### Inspector Comment

Levee Evaluation Comments

Description: Site ID No:87

Site Designation:DWR\_RD0524\_01\_s\_2012\_99

Repair Type: Erosion Rating:Area of Concern Field Date:6/7/2017

Notes: no observable defects to levee, vegetation blocks ws toe



: Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.91	Rating **	A/W	Issue No. 187 (cont)		187 (cont)	
LM End		Issue Type +	Ma	Location *			
Category			GPS Latitude/Longitude				
Calegory	egory			Start		End	
Item	2017 Stor	2017 Storm Damage			o°		0
item		_		-121.33320	o°		0
DWR ID DWR_RD0524_01_f _ 2017_187							
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description: Site ID No:87

Site Designation:DWR\_RD0524\_01\_s\_2012\_99

Repair Type: Erosion Rating:Area of Concern Field Date:6/7/2017

Notes: no observable defects to levee, vegetation blocks ws toe

		D :: ++			
LM Start	0.91	Rating **	A/W	Issue No.	187 (cont)
LM End		Issue Type +	Ma	Location *	



Photo 3 of 3: LEVAL\_FA\_2018\_87\_1290.jpg



A : Acceptable M : Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.91	Rating **	U	Issue No.		29	
LM End	0.91	Issue Type +	Ма	Location *		WS	
Supplemental			GPS Latitude/Longitude				
Category	Category			Start		End	
Item	DWR Ero	sion Survey		37.9355	76°	37.935576°	
пеш				-121.3332	02°	-121.333202°	
DWR ID	RD0524U0	1RM41.5					
	Comment Code						

#### Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed. 08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. No significant

change observed

08/23/2011: The erosion site is immediately downstream of the riprap protection. [2017 Site ID:RD0524U01RM41.5]

LM Start	0.91	Rating **	U	Issue No.	29 (cont)
LM End	0.91	Issue Type +	Ma	Location *	WS

## Photo 1 of 3: FA\_2018\_RD0524\_107\_29\_20180906\_00050.jpg



Front view of the erosion. Note the riprap protection near the site.

#### Photo 2 of 3: FA\_2018\_RD0524\_107\_29\_20180906\_00051.jpg



Close view of the erosion.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.91	Rating **	U	Issue No.		29 (cont)	
LM End	0.91	Issue Type +	Ma	Location *		WS	
Category	Supplemental			GPS Latitude/Longitude			
Calegory	Category			Start		End	
Item	DWR Ero	sion Survey		37.9355	76°	37.935576	٥
item		-121.3332	)2°	-121.333202	٥		
DWR ID	RD0524U0	1RM41.5					

#### Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: The erosion site is immediately downstream of the riprap protection. [2017 Site ID:RD0524U01RM41.5]

noto 3 of 3: FA_2018_RD0524	_107_29_20180906_00052.jpg
	The second secon

Close view of the erosion.

LM Start	0.92	Rating **	U	Issue No.		158	
LM End	1.02	Issue Type +	Ma	Location *		LS	
Category Earthen Levee			GPS Latitude/Longitude				
			Start		End		
Item	Animal Co	ontrol		37.9352	57°	37.934988°	
item			-121		69°	-121.331152°	
DWR ID DWR_RD0524_01_s _ 2017_158							
Comment Code							

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

Multiple large rodent holes along this stretch.

No Photos

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.93	Rating **	U	Issue No.		77		
LM End	1.01	Issue Type +	Ma	Location *		LS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Category				Start		End		
Item	Trim / Thin Trees			37.9352	59°	37.935049°		
пеш				-121.332864 ° -121.3				
DWR ID DWR_RD0524_01_s _ 2012_77								
		Comn	nent Cod	de				
T1: Trim t	rees to at	east five feet	above g	round level				
	Inspector Comment							



Looking south at low hanging tree branches at landside toe.

LM Start	0.97	Rating **	U	Issue No.		20	
LM End	0.97	Issue Type +	Ma	Location *		WS	
Category Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.93518	31 °	37.935181 °	
item				-121.3321	25 °	-121.332125 °	
DWR ID	DWR ID DWR_RD0524_01_f _ 2017_20						
Comment Code							

T4: Trim trees over roadway to at least 12 feet above ground level.

Inspector Comment



Looking southeast at untrimmed tree on waterward slope.(Fall 2018)

Page 32 of 129

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

### Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	0.98	Rating **	A/W	Issue No.		937
LM End	0.98	Issue Type +	Ма	Location *		
Category	Suppleme	ental		GPS Lat	itud	e/Longitude
Calegory				Start		End
Item	DWR UCI	P LMA Respo	nsibility	37.93516	3°	37.935163°
пеш				-121.33188	7°	-121.331887°
DWR ID	20598					

## Inspector Comment

Comment Code

FS\_ID:17575 DS\_ID:20598 EP\_NO: N/A

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: \*ABANDONED\* 36-inch drainage pipe of an unknown material through the levee, 15 feet below the crown. Landside (LS) end is not visible. Concrete headwall at outlet on the waterside (WS) slope is visible. Pipe appears to be abandoned in place. Slide gate on the WS removed. [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin O&M Manual 7, April 1964, (HLM 0.99)]. FS Date: 8/16/2013

LM Start	0.98	Rating **	A/W	Issue No.	937 (cont)
I M End	0.98	Issue Type +	Ma	Location *	



Concrete headwall visible on WS slope.

#### Photo 2 of 2: UCIP\_FA\_2018\_17575\_29735.jpg



Slide gate removed from headwall on WS slope.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.00	Rating **	U	Issue No.		30		
LM End	1.00	Issue Type +	Ма	Location *		WS		
Supplemental			GPS Latitude/Longitude					
Calegory				Start		End		
Item	DWR Ero	sion Survey		37.9354	10°	37.935410°		
пеш				-121.3315	60°	-121.331560 °		
DWR ID	VR ID RD0524U01RM41.58							
	Comment Code							

#### Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed. 06/24/2015: No significant change observed.

06/19/2014: No significant change observed. 08/13/2013: No significant change at this site.

08/07/2012: The erosion was discovered during the boat survey. [2017

Site ID:RD0524U01RM41.58]

		D 1' **			
LM Start	1.00	Rating **	U	Issue No.	30 (cont)
LM End	1.00	Issue Type +	Ma	Location *	WS



Front view of the erosion.

Photo 2 of 4: FA\_2018\_RD0524\_107\_30\_20180906\_00054.jpg



Close view of the erosion.

LM Start	1.00	Rating **	U	Issue No.	30 (cont)
LM End	1.00	Issue Type +	Ma	Location *	WS



Front view of the erosion.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.00	Rating **	U	Issue No.		30 (cont)
LM End	1.00	Issue Type +	Ма	Location *		WS
Category			GPS Latitude/Longitude			
Category				Start		End
Item	DWR Ero	sion Survey		37.9354	10°	37.935410°
пеш				-121.331560 ° -1		-121.331560°
DWR ID	ID RD0524U01RM41.58					
Comment Code						

#### Inspector Comment

09/13/2017: No significant change observed. 07/25/2016: No significant change observed.

06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The erosion was discovered during the boat survey. [2017 Site ID:RD0524U01RM41.58]



Downstream view of the erosion.

LM Start	1.00	Rating **	A/W	Issue No.		198	
LM End	1.01	Issue Type +	Ma	Location *			
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
Item	2017 Storm Damage			37.9351	00°	37.935100°	
пеш				-121.3315	00°	-121.331300°	
DWR ID	DWR_RD0	524_01_f _ 201	7_198				

## Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:536

Site Designation:LMA-442 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes: Appears to be previous repair site adjacent to LMA-442. Large

fox den on land side



LS: Land Side WS: Water Side

Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.00	Rating **	A/W	Issue No.		198 (cont)	
LM End	1.01	Issue Type +	Ma	Location *			
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
Item	2017 Storm Damage			37.9351	00°	37.935100°	
item				-121.33150	00°	-121.331300°	
DWR ID	DWR_RD0524_01_f _ 2017_198						

#### Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:536

Site Designation:LMA-442 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes: Appears to be previous repair site adjacent to LMA-442. Large

fox den on land side

LM Start	1.00	Rating **	A/W	Issue No.	198 (cont)
LM End	1.01	Issue Type +	Ма	Location *	



Photo 3 of 3: LEVAL\_FA\_2018\_536\_4111.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.02	Rating **	U	Issue No.		33		
LM End	1.02	Issue Type +	Ма	Location *	WS			
Category	Suppleme	ental	GPS Latitude/Longitude					
Calegory				Start		End		
Item	DWR Ero	sion Survey		37.9350	78 °	37.935078°		
пеш				-121.33113	34 °	-121.331134°		
DWR ID	DWR ID RD0524U01RM41.59							
	Comment Code							

#### Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. Site has been repaired, but new erosion occurred at the levee slope and immediately upstream of the repaired site.

08/23/2011: The site is about 500 ft downstream of bridge. The levee toe seems to be protected, but the protection is being washed away. [2017 Site ID:RD0524U01RM41.59]

LM Start	1.02	Rating **	U	Issue No.	33 (cont)
LM End	1.02	Issue Type +	Ma	Location *	WS

#### Photo 1 of 3: FA\_2018\_RD0524\_107\_33\_20180906\_00061.jpg



Upstream view of the site.

#### Photo 2 of 3: FA\_2018\_RD0524\_107\_33\_20180906\_00062.jpg



Close view of the erosion.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.02	Rating **	U	Issue No.		33 (cont)	
LM End	1.02	Issue Type + Ma		Location *		WS	
Category	Suppleme	ental	GPS Latitude/Longitude				
Calegory				Start		End	
Item	DWR Ero	sion Survey		37.93507	'8	37.935078	0
пеш				-121.33113	4 °	-121.331134	0
DWR ID	RD0524U0	1RM41.59				·	

#### Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

08/07/2012: The site has been visited by boat survey. Site has been repaired, but new erosion occurred at the levee slope and immediately upstream of the repaired site.

08/23/2011: The site is about 500 ft downstream of bridge. The levee toe seems to be protected, but the protection is being washed away. [2017 Site ID:RD0524U01RM41.59]

# Photo 3 of 3: FA\_2018\_RD0524\_107\_33\_20180906\_00063.jpg



Front view of the site.

LM Start	1.02	Rating **	U	Issue No.		238	
LM End	1.02	Issue Type + Ma		Location *		LS	
Category	Earthen L	evee		GPS Latitude/Longitude			
Calegory				Start		End	
Item	Animal Co	ontrol		37.9349	91 °	37.934991 °	
пеш				-121.3311	60°	-121.331160 °	
DWR ID	DWR_RD0524_01_f _ 2017_238						

#### Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

Two large rodent holes on landward slope and toe. Large erosion around holes.

#### Photo 1 of 2: FA\_2018\_RD0524\_107\_238\_20180906\_00330.jpg



Looking east at large rodent hole on landward slope. (Spring 2018)

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.02	Rating **	U	Issue No.		238 (cont)		
LM End	1.02	Issue Type + Ma		Location *		LS		
Category	Earthen L	evee		GPS La	e/Longitude			
Calegory				Start		End		
Item	Animal Co	ontrol		37.9349	91 °	37.934991		
пеш				-121.3311	60°	-121.331160		
DWR ID	DWR_RD0	DWR_RD0524_01_f _ 2017_238						

#### Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

Two large rodent holes on landward slope and toe. Large erosion around holes.

# Photo 2 of 2: FA\_2018\_RD0524\_107\_238\_20180906\_00332.jpg



Looking northeast at rodent hole on landward slope. (Spring 2018)

LM Start	1.04	Rating **	U	Issue No.		150
LM End	1.04	Issue Type + Ma		Location *		WS
Category	Earthen L	evee		GPS Latitude/Longitude		
Calegory				Start		End
Item	Animal Co	ontrol		37.9348	96°	37.934896°
iteiii				-121.3307	81 °	-121.330781 °
DWR ID	DWR_RD0	524_01_s _ 201	8_150			

#### Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Ма

Issue Type +

LM End

1.04

		mspecic	or Comm	ieni		
0		er or nutria ho c feet of mate			oulder and crown eside hole.	
						Looking at close-up view of
LM Start	1.04	Rating **	U	Issue No.	150 (cont)	Photo 2 of 3 : FA_2018_

ws

# Photo 1 of 3: FA\_2018\_RD0524\_107\_150\_20180906\_00191.jpg



of rodent hole on waterward shoulder. (Spring 2018)

Photo 2 of 3: FA\_2018\_RD0524\_107\_150\_20180906\_00192.jpg



Looking south at large rodent hole on waterward shoulder. (Spring 2018)

\* Location + Issue Type Ma : Maintenance Deficiancy N/A: Not Applicable LS: Land Side Acceptable N : Not Inspected/Rated WS: Water Side Minimally Acceptable C : Corrected Ob : Design & System Obsolescence CR : Crown U : Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.04	Rating **	U	Issue No.		150 (cont)	
LM End	1.04	Issue Type + Ma		Location *		WS	
Category	Earthen L	evee	GPS Latitude/Longitude				
Calegory				Start		End	
Item	Animal Co	ontrol		37.9348	96°	37.934896°	
item				-121.33078	81 °	-121.330781°	
DWR ID	DWR ID DWR_RD0524_01_s _ 2018_150						

# Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

Large rodent or beaver or nutria hole on waterward shoulder and crown of levee. Over 2 cubic feet of material was observed beside hole.

# Photo 3 of 3: FA\_2018\_RD0524\_107\_150\_20180906\_00193.jpg



Looking southeast at large rodent hole on waterward shoulder. (Spring 2018)

1.07	Rating **	U	Issue No.		18			
1.07	Issue Type +	Ma	Location *	LS				
Category Earthen Levee				GPS Latitude/Longitude				
					End			
Slope Stability				15°	37.934715°			
em -		-121.3303	43°	-121.330343 °				
DWR ID DWR_RD0524_01_s _ 2012_18								
	1.07 Earthen L Slope Sta	1.07 Issue Type + Earthen Levee Slope Stability	1.07 Issue Type + Ma Earthen Levee Slope Stability	1.07         Issue Type +         Ma         Location *           Earthen Levee         GPS La           Start         Start           Slope Stability         37.9347           -121.3303	1.07         Issue Type +         Ma         Location *           Earthen Levee         GPS Latitud           Start         Start           Slope Stability         37.934715 °           -121.330343 °			

# Comment Code

S1: Repair slope instability.

#### Inspector Comment

Slope damage extends from shoulder to middle of slope.

LM Start	1.07	Rating **	U	Issue No.	18 (cont)
LM End	1.07	Issue Type +	Ма	Location *	LS

# Photo 1 of 2: FA\_2018\_RD0524\_107\_18\_20180906\_00033.jpg



Looking south at caving on landward shoulder. (Fall 2015)

Photo 2 of 2: FA\_2018\_RD0524\_107\_18\_20180906\_00034.jpg

Updated view from above the slope stability.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Page 41 of 129

#### Flood Control Project Maintenance Levee Inspections

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.12	Rating **	М	Issue No.		171	
LM End	1.16	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Encroachi	ments		37.9342	25°	37.933815°	
пеш				-121.3296	93°	3° -121.329242°	
DWR ID DWR_RD0524_01_s _ 2015_171							
		Comn	nent Cod	de			
PR : Pruni	ngs						
		Inspecto	or Comm	nent			
Prunings left on waterside shoulder and slope.							

Photo 1 of 1: FA\_2018\_RD0524\_107\_171\_20180906\_00223.jpg

Looking south at prunings on waterward shoulders.

LM Start	1.13	Rating **	М	Issue No.		19				
LM End	1.16	Issue Type +	Ma	Location *		Location *		Location *		WS
Category	Earthen L	evee		GPS La	atitud	e/Longitude				
Calegory				Start		End				
Item	Trim / Thi	37.9341	18°	37.933775°						
пеш	item				657°	-121.329305°				
DWR ID	DWR_RD0	524_01_s _ 201	2_19							
		Comn	nent Cod	de						
T1 : Trim t	rees to at I	east five feet	above g	round level						
Inspector Comment										

Photo 1 of 1: FA\_2018\_RD0524\_107\_19\_20180906\_00035.jpg

Looking southeast at low hanging tree branches at waterside toe.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.15	Rating **	U	Issue No.		44	
LM End	1.23	Issue Type +	Ма	Location *		WS	
Category	ental	GPS Latitude/Longitude					
Calegory				Start		End	
Item	DWR Ero	sion Survey		37.9333	47°	37.933347°	
пеш		-121.3291	10°	-121.329110°			
DWR ID RD0524U01RM41.79							

# Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

LM End

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: No significant change observed on site.

09/07/2010: No significant change observed on site. Vegetation is visible at the water line. There is an exposed pipe discharge partially hanging at the mid-slope, possibly still used for discharging irrigation/runoff water. There is minimal rip rap protection along the bank, and what's left of it is no longer adequately protecting the bank. 9/29/2009: Site consists of a 400-foot long eroding bank with minimal vegetation and protection; the existing rip rap has sloughed, rendering it useless; note that there is an exposed section of a pipe. 10/18/2006: There is extensive loss of rip rap on some sections; sewage disposal pond is on the landside of the levee; there is an exposed pipe outlet "hanging" from the upper slope. [2017 Site

ID:RD0524U01RM41.79] Rating \*\* Issue No LM Start 1.15 U 44 (cont) 1.23 Issue Type + Ма Location ' ws

#### Photo 1 of 4: FA\_2018\_RD0524\_107\_44\_20180906\_00073.jpg



Direct view of the site.

#### Photo 2 of 4: FA\_2018\_RD0524\_107\_44\_20180906\_00074.jpg



Direct view of the site.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.15	Rating **	U	Issue No.		44 (cont)
LM End	1.23	Issue Type +	Ма	Location *		WS
Category	ental	GPS Latitude/Longitude				
Category				Start		End
Item	DWR Erosion Survey				47°	37.933347°
item				-121.3291	10°	-121.329110°
DWR ID	RD0524U0	1RM41.79				·

#### Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change at this site.

ID:RD0524U01RM41.79]

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: No significant change observed on site.

09/07/2010: No significant change observed on site. Vegetation is visible at the water line. There is an exposed pipe discharge partially hanging at the mid-slope, possibly still used for discharging irrigation/runoff water. There is minimal rip rap protection along the bank, and what's left of it is no longer adequately protecting the bank. 9/29/2009: Site consists of a 400-foot long eroding bank with minimal vegetation and protection; the existing rip rap has sloughed, rendering it useless; note that there is an exposed section of a pipe. 10/18/2006: There is extensive loss of rip rap on some sections; sewage disposal pond is on the landside of the levee; there is an exposed pipe outlet "hanging" from the upper slope. [2017 Site

 LM Start
 1.15
 Rating \*\*
 U
 Issue No.
 44 (cont)

 LM End
 1.23
 Issue Type +
 Ma
 Location \*
 WS

# Photo 3 of 4 : FA\_2018\_RD0524\_107\_44\_20180906\_00075.jpg



View of the erosion.

#### Photo 4 of 4: FA\_2018\_RD0524\_107\_44\_20180906\_00076.jpg



View of the site. Note the tree near the erosion site.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.16	Rating **	U	Issue No.		915
LM End	1.23	Issue Type +	Ma	Location *		LS
Category Earthen Levee			GPS Latitude/Longitude			
			Start		End	
Item	Vegetatio	n		37.9337	75 °	37.932784°
item			-121.32925		50°	-121.328765°
DWR ID DWR_RD0524_01_s _ 2012_915						
		Comn	nent Coc	le .		

V2 : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

Control veg at landside toe.



Looking southwest at dense veg at landward toe and berm. (Fall 2016)

LM Start	1.18	Rating **	A/W	Issue No.	221	
LM End	1.20	Issue Type +	Ma	Location *		
Catagony	Suppleme	ental	GPS Latitude/Longitude			
Calegory	Category		Start		End	
Item	2017 Stor	m Damage	Damage		00°	37.933200°
item				-121.3291	00°	-121.328900 °
DWR ID	DWR_RD0	524_01_f _ 201	7_221			·

#### Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:535

Site Designation:LMA-441 Repair Type: Erosion

Rating: Area of Concern Field Date:8/10/2017

Notes:

# Photo 1 of 3: LEVAL\_FA\_2018\_535\_4115.jpg



N/A: Not Applicable LS: Land Side WS: Water Side

Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated

C : Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.18	Rating **	A/W	Issue No.	221 (cont)		
LM End	1.20	Issue Type +	Ма	Location *			
Category	Supplemental GPS Latitude/Longitu					le/Longitude	
Calegory	Category		Start		End		
Item	2017 Stor	m Damage		37.93350	00°	37.933200°	
пеш				-121.32910	00°	-121.328900 °	
DWR ID DWR_RD0524_01_f _ 2017_221							
	Comment Code						

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:535

Site Designation:LMA-441 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:

LM Start	1.18	Rating **	A/W	Issue No.	221 (cont)
LM End	1.20	Issue Type +	Ma	Location *	



Photo 3 of 3: LEVAL\_FA\_2018\_535\_4117.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.25	Rating **	A/W	Issue No.	222	
LM End	1.30	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
Calegory	Category			Start		End
Item	2017 Stor	m Damage		37.9326	00°	37.931900°
пеш				-121.3287	00°	-121.328400 °
DWR ID	DWR_RD0	524_01_f _ 201	7_222			
Comment Code						

### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:534

Site Designation:LMA-440 Repair Type: Erosion

Rating:Serious Field Date:8/10/2017

Notes: site is related to, but not combined with, LMA-439 a portion of this site has been repaired.

LM Start	1.25	Rating **	A/W	Issue No.	222 (cont)
LM End	1.30	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL\_FA\_2018\_534\_4122.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.25	Rating **	A/W	Issue No.		222 (cont)
LM End	1.30	Issue Type +	Ма	Location *		
Category	Supplemental			GPS Latitude/Longitu		
Calegory	egory			Start		End
ltom	2017 Stor	m Damage		37.93260	00°	37.931900°
item	Item		-121.32870	00°	-121.328400 °	
DWR ID	DWR_RD0	524_01_f _ 201	7_222			

#### Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:534

Site Designation:LMA-440 Repair Type: Erosion Rating:Serious Field Date:8/10/2017

Notes: site is related to, but not combined with, LMA-439 a portion of this site has been repaired.



LM Start	1.27	Rating **	A/W	Issue No.	47			
LM End	1.30	Issue Type +	Ма	Location *		WS		
Category Supplemental			GPS Latitude/Longitude					
Calegory		Start		End				
Item	DWR Ero	sion Survey	sion Survey		58°	37.931887	0	
пеш				-121.3283	00°	-121.328343	0	
DWR ID	RD0524U0	1RM41.92						
	Comment Code							

#### Inspector Comment

5/17/2018. LM 1.30-1.31 was repaired by DWR the remainder of the site was un affected.

09/13/2017. The erosion has developed along the levee slope. The length of the erosion is nearly doubled comparing to the prior survey.

07/25/2016: No significant change observed. 06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: New signs of animal activity were found.

08/07/2012: The site was first reported in 2012 spring levee inspection

report. [2017 Site ID:RD0524U01RM41.92]



Front view of the erosion.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.27	Rating **	A/W	Issue No. 47 (co		47 (cont)	
LM End	1.30	Issue Type +	Ма	Location *	WS		
Category Supplemental			GPS Latitude/Longitude				
			Start		End		
Item	DWR Erosion Survey			37.931858°		37.931887°	
пеш			-121.328300 °		-121.328343 °		
DWR ID RD0524U01RM41.92							
Comment Code							

#### Inspector Comment

5/17/2018. LM 1.30-1.31 was repaired by DWR the remainder of the site was un affected.

09/13/2017. The erosion has developed along the levee slope. The length of the erosion is nearly doubled comparing to the prior survey.

07/25/2016: No significant change observed. 06/24/2015: No significant change observed.

06/19/2014: No significant change observed. 08/13/2013: New signs of animal activity were found.

08/07/2012: The site was first reported in 2012 spring levee inspection

report. [2017 Site ID:RD0524U01RM41.92]

. Nu

Photo 2 of 4: FA\_2018\_RD0524\_107\_47\_20180906\_00085.jpg

Front view of the erosion.

# LM Start 1.27 Rating \*\* A/W Issue No. 47 (cont) LM End 1.30 Issue Type + Ma Location \* WS

Photo 3 of 4: FA\_2018\_RD0524\_107\_47\_20180906\_00086.jpg



Close view of the erosion.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.27	Rating **	A/W	Issue No.		47 (cont)	
LM End	1.30	Issue Type +	Ma	Location *	Location *		
Category			GPS Latitude/Longitude				
Calegory					Start		
DWR Erosion Survey			37.931858°		37.931887		
Item				-121.328300 °		° -121.328343	
DWR ID	RD0524U01RM41.92						
Comment Code							

#### Inspector Comment

5/17/2018. LM 1.30-1.31 was repaired by DWR the remainder of the site was un affected.

09/13/2017. The erosion has developed along the levee slope. The length of the erosion is nearly doubled comparing to the prior survey.

07/25/2016: No significant change observed. 06/24/2015: No significant change observed.

06/19/2014: No significant change observed. 08/13/2013: New signs of animal activity were found.

08/07/2012: The site was first reported in 2012 spring levee inspection

report. [2017 Site ID:RD0524U01RM41.92]



Front view of the erosion. Note the worsen erosion next to the protected slope.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.29	Rating **	М	Issue No.		940
LM End	1.29	Issue Type +	Ма	Location *		
Category			GPS Latitude/Longitude			
Calegory				Start		End
Item	DWR UCIP LMA Responsibility			37.93197	7 °	37.931977°
пеш				-121.32840	1 °	-121.328401°
DWR ID	20602					

# Inspector Comment

Comment Code

FS\_ID:53162 DS\_ID:20602 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 10/2/2018 Pipe appears abandoned, but both the pipe and levee appear in good condition; downgrading to Non-Urgent (D. Sanoski - DWR UCIP).11/16/2016 same as previous inspection both ends are open. This pipe does not appear in use. Need to contact owner to determine status of crossing. If the crossing is abandoned or in use, owner will need to coordinate with the CVFPB to comply with Title 23 requirements. (O. Magana - DWR UCIP)08/16/2013 Pipe appears to be open on both ends. Abandoned and should be done so properly. (W. Wylie - DWR UCIP)

FIELD\_STRUCT\_DESC: \*ABANDONED\* 12-inch steel drainage pipe through the levee, 3.5 feet below the crown. Pipe is opened on the waterside (WS) and landside (LS) ends. The pump house referenced in O&M manual is missing from the LS (2013). [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin O&M Manual 7, April 1964, (HLM 1.31)].

FS Date: 10/2/2018 1:10:16 PM

LM Start	1.29	Rating **	М	Issue No.	940 (cont)
LM End	1.29	Issue Type +	Ma	Location *	



Pipe visible and open on WS slope.

#### Photo 2 of 3: UCIP\_FA\_2018\_53162\_29861.jpg



Pipe open and visible on LS slope.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.29	Rating **	М	Issue No.		940 (cont)	
LM End	1.29	Issue Type +	Ма	Location *			
Supplemental			GPS Latitude/Longitude				
Category	Category			Start		End	
Item	DWR UCIP LMA Responsibility			37.93197	7 °	37.931977°	
пеш			-121.32840	1°	-121.328401 °		
DWR ID	20602						
Comment Code							

#### Inspector Comment

FS\_ID:53162 DS\_ID:20602 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 10/2/2018 Pipe appears abandoned, but both the pipe and levee appear in good condition; downgrading to Non-Urgent (D. Sanoski - DWR UCIP).11/16/2016 same as previous inspection both ends are open. This pipe does not appear in use. Need to contact owner to determine status of crossing. If the crossing is abandoned or in use, owner will need to coordinate with the CVFPB to comply with Title 23 requirements. (O. Magana - DWR UCIP)08/16/2013 Pipe appears to be open on both ends. Abandoned and should be done so properly. (W. Wylie - DWR UCIP)

FIELD\_STRUCT\_DESC: \*ABANDONED\* 12-inch steel drainage pipe through the levee, 3.5 feet below the crown. Pipe is opened on the waterside (WS) and landside (LS) ends. The pump house referenced in O&M manual is missing from the LS (2013). [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin O&M Manual 7, April 1964, (HLM 1.31)].

FS Date: 10/2/2018 1:10:16 PM

Photo 3 of 3: UCIP\_FA\_2018\_53162\_29860.jpg



Pipe appears open on both ends. View from LS slope.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.33	Rating **	A/W	Issue No.		225	
LM End	1.33	Issue Type +	Ма	Location *			
Supplemental			GPS Latitude/Longitude				
Category	Category			Start		End	
Item	2017 Storm Damage			37.931500°		37.931500°	
пеш		-121.32820	00°	-121.328200 °			
DWR ID	D DWR_RD0524_01_f _ 2017_225						
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:532

Site Designation:LMA-438 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:

LM Start	1.33	Rating **	A/W	Issue No.	225 (cont)
LM End	1.33	Issue Type +	Ма	Location *	



Photo 2 of 3: LEVAL\_FA\_2018\_532\_4173.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.33	Rating **	A/W	Issue No.	lo. 225 (cont)	
LM End	1.33	Issue Type +	Ма	Location *		
Category	GPS Latitude/Longitude					
Category				Start		End
Item	2017 Storm Damage			37.93150	0°	37.931500°
пеш				-121.32820	0°	-121.328200 °
DWR ID DWR_RD0524_01_f _ 2017_225						
Comment Code						

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:532

Site Designation:LMA-438 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:



LM Start	1.33	Rating **	М	Issue No. 55		55	
LM End	1.33	Issue Type +	Ma	Location *	WS		
Category	ental	GPS Latitude/Longitude					
Calegory	Salegory					End	
Item	DWR Ero	sion Survey		37.9315	10°	37.931510°	
item				-121.3281	20°	-121.328120°	
DWR ID RD0524U01RM41.95							
Comment Code							

#### Inspector Comment

09/13/2017: The erosion is located immediately upstream of a protected levee section. [2017 Site ID:RD0524U01RM41.95]

#### Photo 1 of 2 : FA\_2018\_RD0524\_107\_55\_20180906\_00096.jpg



Front view of the erosion.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.33	Rating **	Issue No.	sue No. 55 (co			
LM End	1.33	Issue Type +	Ma	Location * WS		WS	
Category	GPS Latitude/Longitude						
Calegory		Start		End			
Item	" DWR Erosion Survey			37.9315	10°	37.931510°	
пеш	item					-121.328120°	
DWR ID	DWR ID RD0524U01RM41.95						
Comment Code							

#### Inspector Comment

09/13/2017: The erosion is located immediately upstream of a protected levee section. [2017 Site ID:RD0524U01RM41.95]



Front view of the erosion.

LM Start	1.39	Rating **	Issue No.		56		
LM End	1.39	Issue Type +	Location *		WS		
Cotogony	Supplemental				GPS Latitude/Longitude		
Calegory	Category				Start		
Item	DWR Erosion Survey			37.9305	75°	37.930575°	
item				-121.3280	90°	-121.328090 °	
DWR ID	RD0524U01RM42.03						

# Inspector Comment

Comment Code

09/13/2017: No significant change observed 07/25/2016: No significant change observed

06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The site was first reported in 2012 spring levee inspection report. The site is located about 750 ft downstream of SR 4 Bridge. [2017 Site ID:RD0524U01RM42.03]

#### Photo 1 of 3: FA\_2018\_RD0524\_107\_56\_20180906\_00098.jpg



Front view of the erosion.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.39	Issue No.	56 (cont)			
LM End	1.39	Issue Type +	Ма	Location *	* WS	
Category	ental	GPS Latitude/Longitude				
Calegory	Zategory					End
Item	DWR Ero	sion Survey		37.9305	75 °	37.930575°
пеш				-121.3280	90°	-121.328090 °
DWR ID RD0524U01RM42.03						
Comment Code						

# Inspector Comment

09/13/2017: No significant change observed

07/25/2016: No significant change observed 06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The site was first reported in 2012 spring levee inspection report. The site is located about 750 ft downstream of SR 4 Bridge.

[2017 Site ID:RD0524U01RM42.03]

LM Start	1.39	Rating **	U	Issue No.	56 (cont)
LM End	1.39	Issue Type +	Ma	Location *	WS

#### Photo 2 of 3: FA\_2018\_RD0524\_107\_56\_20180906\_00099.jpg



Front view of the erosion.

#### Photo 3 of 3: FA\_2018\_RD0524\_107\_56\_20180906\_00100.jpg



Close view of the erosion.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.43	Rating **	A/W	Issue No.		226
LM End	1.44	Issue Type +	Ma	Location *		
Category	Supplemental					e/Longitude
Calegory		Start		End		
Item	2017 Storm Damage			37.9301	00°	37.929900°
пеш				-121.3283	00°	-121.328300 °
DWR ID	DWR_RD0524_01_f _ 2017_226					

#### Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:530

Site Designation:LMA-436 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:

LM Start	1.43	Rating **	A/W	Issue No.	226 (cont)
LM End	1.44	Issue Type +	Ма	Location *	



Photo 2 of 3: LEVAL\_FA\_2018\_530\_4184.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.43	Rating **	A/W	Issue No. 226 (cor		226 (cont)	
LM End	1.44	Issue Type +	Ма	Location *			
Category	Supplemental			al GPS Latitude/Longitud			
Calegory	Sategory					End	
Item	2017 Stor	2017 Storm Damage			00°	37.929900°	
пеш		-121.3283	00°	-121.328300°			
DWR ID	DWR_RD0524_01_f _ 2017_226						
Comment Code							

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:530

Site Designation:LMA-436 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:



LM Start	1.45	Rating **	U	Issue No.		60
LM End	1.47	Issue Type +	Ma	Location *		WS
Category	Supplemental			GPS Latitude/Longitude		
Category				Start		End
Item	DWR Erosion Survey			37.9296	50°	37.929650°
item				-121.3281	10°	-121.328110°
DWR ID	RD0524U0	1RM42.09				

# Comment Code Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: The site is located approximately 400 ft. downstream SR 4

Bridge. Dense vegetation is visible at the toe. [2017 Site

ID:RD0524U01RM42.09]

#### Photo 1 of 4: FA\_2018\_RD0524\_107\_60\_20180906\_00106.jpg



Front view of the erosion site.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.45	<b>1.45</b> Rating ** U				60 (cont)	
LM End	1.47	Issue Type +	Ma	Location *	WS		
Category	Supplemental			GPS Latitude/Longitude			
Calegory	Calegory					End	
Item	DWR Erosion Survey			37.92965	50°	37.929650°	
пеш		-121.32811	0°	-121.328110°			
DWR ID	RD0524U01RM42.09						
Comment Code							

#### Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: The site is located approximately 400 ft. downstream SR 4

Bridge. Dense vegetation is visible at the toe. [2017 Site

ID:RD0524U01RM42.09]



# Photo 2 of 4 : FA\_2018\_RD0524\_107\_60\_20180906\_00107.jpg



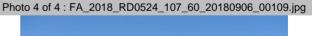
Front view of the erosion.

#### Photo 3 of 4: FA\_2018\_RD0524\_107\_60\_20180906\_00108.jpg



Close view of the erosion. Note the vegetation at the site.

LM Start	1.45	Rating **	U	Issue No.	60 (cont)
LM End	1.47	Issue Type +	Ma	Location *	WS





Close view of the erosion.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

-							
LM Start	1.49	Rating **	U	Issue No.		916	
LM End	1.49	Issue Type +	Ma	Location *	LS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Trim / Thi	Trim / Thin Trees			18°	37.929118°	
item				-121.3283	868°	-121.328368 °	
DWR ID	DWR_RD0524_01_s _ 2012_916						
		Comn	nent Cod	de			
T3 : Trim and thin trees to allow visibility of the ground and room to flood fight.							
Inspector Comment							
Untrimmed	trees and	dense veget	ation on	landside to	e.		



Looking at dense trees on landward slope and toe fall 2015

LM Start	1.55	Rating **	U	Issue No.		202		
LM End	1.55	Issue Type +	Ma	Location *		WS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Calegory				Start		End		
Item	Erosion / I	Erosion / Bank Caving			91°	37.928391°		
item		-121.3282	?73°	-121.328273°				
DWR ID	DWR_RD0524_01_f _ 2016_202							
		Comn	nent Coo	de				
E2 : Schedule repair of erosion site prior to the next inspection.								
Inspector Comment								
Large hole shoulder.	(looks like	fences post	or teleph	one pole) (	on wa	aterside		

LM Start	1.55	Rating **	U	Issue No.	202 (cont)
LM End	1.55	Issue Type +	Ma	Location *	WS

# Photo 1 of 2: FA\_2018\_RD0524\_107\_202\_20180906\_00267.jpg

Looking at large hole (Fence/telephone post hole) on waterward shoulder.

Photo 2 of 2: FA\_2018\_RD0524\_107\_202\_20180906\_00268.jpg



Looking at hole on waterward shoulder.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.56	Rating **	U	Issue No.		62
LM End	1.62 Issue Type + Ma			Location *		WS
Category				GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR Ero	sion Survey		37.9277	70°	37.927770°
пеш				-121.3278	70°	-121.327870°
DWR ID	RD0524U0	1RM42.2				

#### Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: No significant change observed on site. Trees concerned still in place.

09/07/2010: No significant change observed on site. The concern here is the undermining of the levee toe where most of trees are. There are erosion pockets lined along the lower slope and at the base of the trees, exposing tree roots. There is minimal slope protection. 09/29/2009: The lower slope is lined with minor erosion pockets; some tree roots are exposed; there is visible undermining of the levee toe; site is immediately upstream of the Highway 4 Bridge; the bridge is possibly causing a scour to occur, eroding the bank. [2017 Site ID:RD0524U01RM42.2]

LM Start	1.56	Rating **	U	Issue No.	62 (cont)
LM End	1.62	Issue Type +	Ma	Location *	WS

#### Photo 1 of 3: FA\_2018\_RD0524\_107\_62\_20180906\_00111.jpg



Front view of the site where undermining has occurred.

#### Photo 2 of 3: FA\_2018\_RD0524\_107\_62\_20180906\_00112.jpg



Close view of the erosion.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.56	Rating **	U	Issue No.		62 (cont)
LM End	1.62	1.62 Issue Type + Ma				WS
Supplemental				GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR Ero	sion Survey		37.9277	70°	37.927770
пеш				-121.3278	70°	-121.327870
DWR ID	RD0524U0	1RM42.2				

#### Inspector Comment

Comment Code

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

ID:RD0524U01RM42.2]

08/07/2012: The site has been visited by boat survey. No significant change observed

08/23/2011: No significant change observed on site. Trees concerned still in place.

09/07/2010: No significant change observed on site. The concern here is the undermining of the levee toe where most of trees are. There are erosion pockets lined along the lower slope and at the base of the trees, exposing tree roots. There is minimal slope protection. 09/29/2009: The lower slope is lined with minor erosion pockets; some tree roots are exposed; there is visible undermining of the levee toe; site is immediately upstream of the Highway 4 Bridge; the bridge is possibly causing a scour to occur, eroding the bank. [2017 Site

# Photo 3 of 3 : FA\_2018\_RD0524\_107\_62\_20180906\_00113.jpg



Front view of the erosion. Dense vegetation is visible.

LM Start	1.59	Rating **	A/W	Issue No.		151
LM End	1.61	Issue Type +	Ma	Location *	LS	
Category	Earthen L	evee	GPS Latitude/Longitude			
Category				Start		End
Item	Animal Co	ontrol		37.92768	80°	37.927512°
пеш				-121.32800	)4 °	-121.327815°
DWR ID	DWR_RD0	524_01_s _ 201	8_151			

#### Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

Several large rodent holes on landward slope. Backfilled rodent hole. No rodent program present.

# Photo 1 of 2 : FA\_2018\_RD0524\_107\_151\_20180906\_00194.jpg



Looking at close-up view of large rodent hole on landward slope. (Spring 2018)

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.59	Issue No.		151 (cont)		
LM End	1.61	Issue Type +	Ма	Location *		LS
Category	evee	GPS Latitude/Longitude				
Calegory	Category					End
Item	Animal Control				80°	37.927512°
item			-121.3280	04°	-121.327815°	
DWR ID DWR_RD0524_01_s _ 2018_151						

#### Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

Several large rodent holes on landward slope. Backfilled rodent hole. No rodent program present.

Photo 2 of 2: FA\_2018\_RD0524\_107\_151\_20180906\_00195.jpg



Looking east at large rodent hole on landward slope. (Spring 2018)

LM End 1.59 Issue Type + Ma Location * CR  Category Earthen Levee GPS Latitude/Longitude							
Category							
Start End							
Slope Stability 37.927775 ° 37.92777	5°						
-121.327860 ° -121.32786	0°						
DWR ID DWR_RD0524_01_s _ 2013_136							

Comment Code

S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.

#### Inspector Comment

Waterside shoulder caving.

No Photos

LM Start	1.60	Rating **	U	Issue No.		25		
LM End	1.61	Issue Type +	Ma	Location *	WS			
Category	Earthen Levee					GPS Latitude/Longitude		
Category			Start		End			
Item	Vegetatio	n		37.9276	35°	37.927540		
пеш				-121.3278	12°	-121.327648		
DWR ID	DWR RD0	524 01 s 201	2 25					

#### Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment



Photo 1 of 3: FA\_2018\_RD0524\_107\_25\_20180906\_00042.jpg

Looking northwest at dense veg on waterward slope.

\* Location

LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown

\*\* Rating

A : Acceptable N : Not Inspected/Rated M: Maintenance Deficiancy

M : Minimally Acceptable CR : Corrected Ob: Design & System Obsolescence

U : Unacceptable A/W : Acceptable but Monitor & Maintain En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.60	Rating **	U	Issue No.		25 (cont)		
LIVI Start	1.00	rtating	U	23 (COIII)				
LM End	1.61	Issue Type +	Ma	Location *	WS			
Category Earthen Levee GPS Latitude/Longitude								
Category			Start		End			
Item	Vegetatio		37.9276	35°	37.927540°			
item			-121.327812 °		-121.327648°			
DWR ID DWR_RD0524_01_s _ 2012_25								
Comment Code								
V2 : Remove the wild growth other than native grasses from the levee slopes.								
	Inspector Comment							
I								

 LM Start
 1.60
 Rating \*\*
 U
 Issue No.
 25 (cont)

 LM End
 1.61
 Issue Type +
 Ma
 Location \*
 WS



Looking northwest at end of dense veg on waterward slope.

Photo 3 of 3: FA\_2018\_RD0524\_107\_25\_20180906\_00044.jpg



Looking southwest at dense veg on waterward slope.

Photo 1 of 3: FA\_2018\_RD0524\_107\_26\_20180906\_00045.jpg

LM Start	1.62	Rating **	М	Issue No.		26		
LM End	1.64	Issue Type +	Ма	Location *		WS		
Category	evee	GPS La	atitud	e/Longitude				
Calegory				Start		End		
Item	Erosion / I	Bank Caving		37.9275	07°	37.927295°		
item				-121.3275	93°	-121.327298°		
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_26							
		Comn	nent Cod	de				
E1 : Note a	and monito	or erosion site	•					
		Inspecto	or Comm	nent				
Several er	Several erosions along this reach.							



Looking south at waterward erosion.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.62	Rating **	М	Issue No.		26 (cont)		
LM End	1.64	Issue Type +	Ма	Location *	WS			
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Calegory				Start		End		
Item	Erosion / I	Bank Caving		37.9275	07°	37.927295°		
пеш				-121.3275	93 °	-121.327298°		
DWR ID DWR_RD0524_01_s _ 2012_26								
		Comn	nent Cod	de				
E1 : Note a	and monito	or erosion site						
		Inspecto	or Comm	nent				
Several erosions along this reach.								

LM Start	1.62	Rating **	М	Issue No.	26 (cont)
LM End	1.64	Issue Type +	Ма	Location *	WS



Looking east at waterward erosion.

Photo 3 of 3: FA\_2018\_RD0524\_107\_26\_20180906\_00047.jpg



Looking east at waterward erosion and depression.

LM Start	1.65	Rating **	N	Issue No.		8
LM End	1.68	Issue Type +	Ма	Location *		WS
Cotogony	GPS La	atitud	e/Longitude			
Category				Start		End
Item	Trim / Thi		37.9272	55 °	37.926855°	
пеш				-121.3271	37°	-121.326672°
DWR ID DWR_RD0524_01_s _ 2012_8						·
		Comn	nent Cod	de		
T5 : Tree s	stumps.					
		Inspecto	or Comm	nent		
Several tree stumps on waterside shoulder.						

No Photos

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.66	Rating **	М	Issue No.		240	
LM End	1.66	Issue Type +	Ma	Location *		LS	
Earthen Levee				GPS La	atitud	e/Longitude	
Category				Start		End	
Item	Encroachi	ments		37.9271	59°	37.927159°	
пеш				-121.327022 °		22° -121.327022°	
DWR ID DWR_RD0524_01_f _ 2017_240							
		Comn	nent Cod	de			
TR : Tree	or limb						
Inspector Comment							

Photo 1 of 1: FA\_2018\_RD0524\_107\_240\_20180906\_00335.jpg



Looking southeast at the landside slope.

LM Start	1.68	Rating **	М	Issue No.		242						
LM End	1.68	Issue Type +	Ma	Location *		LS						
Category Earthen Levee			GPS Latitude/Longitude									
Calegory	egory			Start		End						
Item	Encroach	ments		37.926917°		37.926917°						
пеш				-121.3267	28°	-121.326728°						
DWR ID DWR_RD0524_01_f _ 2017_242												
		Comp	nent Coc	10		Comment Code						

TR: Tree or limb

Inspector Comment

No Photos

LM Start	1.69	Rating **	М	Issue No.		27	
LM End	1.70	Issue Type +	Ma	Location *	WS		
Category Earthen Levee				GPS Latitude/Longitude			
Category	alegory					End	
Item	Slope Sta	bility		37.9267	28°	37.926730°	
пеш						-121.326508°	
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_27						
	Comment Code						

S1: Repair slope instability.

Inspector Comment

Slope damage several feet long and greater than one inch deep.



Looking south at landward slope drepression.

\* Location + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence LS : Land Side N: Not Inspected/Rated N/A: Not Applicable A : Acceptable M : Minimally Acceptable WS: Water Side C : Corrected A/W : Acceptable but Monitor & Maintain U : Unacceptable En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.71	Rating **	U	Issue No.		243	
LM End	1.72	Issue Type +	Ma	Location *	WS		
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Vegetation			37.9266	38°	37.926471°	
пеш				-121.326374°		-121.326175°	
DWR ID	DWR ID DWR_RD0524_01_f _ 2017_243						
		Comn	nent Cod	de			
V2 : Remo	V2 : Remove the wild growth other than native grasses from the levee slopes.						
Inspector Comment							



Looking southeast at the waterside slope.

LM Start	1.73	Rating **	U	Issue No.		244
LM End	1.75	Issue Type +	Ма	Location *		WS
Category Earthen Levee			GPS Latitude/Longitude			
Calegory	y			Start		End
ltem	Vegetation	า		37.9263	95°	37.926191 °
item				-121.3261	25°	-121.325952 °
DWR ID DWR_RD0524_01_f _ 2017_244						

Comment Code

V2: Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

# Photo 1 of 1: FA\_2018\_RD0524\_107\_244\_20180906\_00338.jpg



Looking southeast at the waterside slope.

LM Start	1.73	Rating **	U	Issue No.	245	
LM End	1.75	Issue Type +	Ma	Location *	LS	
Category	Category Earthen Levee			GPS La	titud	e/Longitude
Category	y		Start		End	
Item	Vegetatio	n		37.9263	12°	37.926093°
пеш				-121.3260	65 °	-121.325864°
DWR ID	DWR_RD0	524_01_f _ 201	7_245			·

Comment Code

V2: Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment



Looking southeast at the landside slope.

* Location	** Rating		+ Issue Type	
LS : Land Side N/A : Not App	licable A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy	
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.94	Rating **	М	Issue No.		159		
LM End	1.95	Issue Type +	Ма	Location *	WS			
Category	evee	GPS La	atitud	e/Longitude				
Calegory				Start		End		
Item	Slope Sta	bility		37.9237	'03	37.923645°		
пеш		-121.324238 ° -121.3242						
DWR ID DWR_RD0524_01_s _ 2017_159								
		Comn	nent Cod	de				
S1 : Repai	r slope ins	tability.						
		Inspecto	or Comm	nent				
Minor sloughing and cracking.								



Looking at minor cracking and sloughing on waterward slope.

LM Start	1.94	Rating **	М	Issue No.	246		
LM End	1.94	Issue Type +	Ma	Location *	LS		
Category Earthen Levee			GPS Latitude/Longitude				
Category			Start		End		
Item	Trim / Thi	n Trees		37.9236	92 °	37.923692°	
item				-121.3242	25 °	-121.324225 °	
DWR ID	DWR_RD0	524_01_f _ 201	7_246			·	
	Comment Code						

T1 : Trim trees to at least five feet above ground level.

Inspector Comment

No Photos

LM Start	1.94	Rating **	U	Issue No.		176			
LM End	1.94	Issue Type +	Ma	Location *		LS			
Category Earthen Levee				GPS La	atitud	le/Longitude			
Category				Start		End			
Item	Erosion /	37.9236	88°	37.923688	0				
пеш				-121.324223 °		-121.324223	0		
DWR ID	DWR_RD0	524_01_s _ 201	5_176						
		Comn	nent Cod	de					
E2 : Sched	E2 : Schedule repair of erosion site prior to the next inspection.								
	Inspector Comment								

Landside caving (3 x 18" x 5 ) caused by broken sprinklers.



Looking west at erosion within landscaping on landward shoulder and slope.

\*Location
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating
A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable C: Corrected U: Unacceptable A/W: Acceptable but Monitor & Maintain Enforcement

\* Issue Type
Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	1.94	Rating **	U	Issue No.		176 (cont)	
LM End	1.94	Issue Type +	Ма	Location *	LS		
Category	Earthen L	evee		GPS La	tituc	le/Longitude	
Calegory				Start		End	
Item	Erosion / I	Bank Caving		37.92368	88°	37.923688°	
пеш				-121.32422	23 °	-121.324223 °	
DWR ID DWR_RD0524_01_s _ 2015_176							
		Comn	nent Cod	de			
E2 : Sched	dule repair	of erosion site	e prior to	the next ins	spe	ction.	
		Inspecto	or Comm	nent			
Landside caving (3 x 18" x 5 ) caused by broken sprinklers.							



Looking east at erosion within landscaping on landward slope and shoulder.

LM Start	2.25	Rating **	С	Issue No.		31		
LM End	2.25	Issue Type +	Ma	Location *	WS			
Category	Earthen L	evee	GPS La	atitud	e/Longitude			
Odlogory				Start		End		
Item	Slope Sta	bility		37.9204	93°	37.920493 °		
itom				-121.320565 °		-121.320565 °		
DWR ID	DWR_RD0	524_01_s _ 201	2_31					
		Comn	nent Cod	de				
S1 : Repai	r slope ins	tability.						
Inspector Comment								
Slope instability probably cause by leak in irrigation pipe. Pipe should be inspected internally.								

No Photos

LM Start	2.27	Rating **	U	Issue No.		32	
LM End	2.29	Issue Type +	Ма	Location *		LS	
Category Earthen Levee			GPS La	atitud	e/Longitude		
Category	Category					End	
Item	Vegetatio	n		37.9203	72°	37.920167°	
item				-121.3202	30°	-121.319890°	
DWR ID DWR_RD0524_01_s _ 2012_32							
	Comment Code						

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment

Dense elderberry bushes on landside slope and toe.

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.30	Rating **	М	Issue No.		70		
LM End	2.30	Issue Type +	Ma	Location *	WS			
Category Supplemental				Supplemental GPS Latitude/L				le/Longitude
				Start		End		
DWR Erosion Survey			37.920150°		37.920150°			
пеш				-121.319700°		-121.319700 °		
DWR ID RD0524U01RM42.9								
Comment Code								

#### Inspector Comment

09/13/2017: The erosion is located immediately upstream of a repaired levee section. [2017 Site ID:RD0524U01RM42.9]

LM Start	2.30	Rating **	М	Issue No.	70 (cont)
LM End	2.30	Issue Type +	Ma	Location *	WS

# Photo 1 of 3 : FA\_2018\_RD0524\_107\_70\_20180906\_00120.jpg



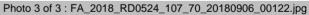
Front view of the pocket erosion.

## Photo 2 of 3: FA\_2018\_RD0524\_107\_70\_20180906\_00121.jpg



Close view of the erosion.

LM Start	2.30	Rating **	М	Issue No.	70 (cont)
LM End	2.30	Issue Type +	Ma	Location *	WS





Front view of the erosion.

\* Location
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating
A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable C: Corrected Ob: Design & System Obsolescence C: Corrected A/W: Acceptable but Monitor & Maintain Enforcement

\* Issue Type
Ma: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.32	Rating **	С	Issue No.		34	
LM End	2.33	Issue Type +	Ma	Location *	WS		
Category	evee	GPS La	atitud	e/Longitude			
Category				Start		End	
Item	Slope Sta	bility		37.9198	85 °	37.919703°	
пеш			-121.319713°		-121.319702°		
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_34						
		Comn	nent Cod	de			
S2: Repair the levee slope damaged by foot traffic and prevent access where possible.							
Inspector Comment							
Slope damage caused by walking traffic and using bank as a fishing platform.							

No Photos

LM End 2.33 Issue Type + Ma Location * LS	
Category Earthen Levee GPS Latitude/Longitude	
Start End	
Trim / Thin Trees 37.919742 ° 37.9197	42°
-121.319623° -121.3196	23°
DWR ID DWR_RD0524_01_s _ 2012_107	

#### Comment Code

T1: Trim trees to at least five feet above ground level.

#### Inspector Comment

Photo 1 of 1: FA\_2018\_RD0524\_107\_107\_20180906\_00169.jpg



Looking northwest at untrimmed tress at landward toe.

LM Start	2.38	Rating **	M	Issue No.	184		
LM End	2.38	Issue Type +	Ma	Location *	LS		
Category Earthen Levee				GPS Latitude/Longitude			
				Start		End	
Item	Trim / Thin Trees				36°	37.919036	0
item				-121.3199	69°	-121.319969	0
DWR ID	NR ID DWR_RD0524_01_s _ 2014_184						
Comment Code							

T1: Trim trees to at least five feet above ground level.

Inspector Comment

No Photos

* Location		** Rating		+ Issue Type
LS: Land Side	N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenan
WS: Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & :
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforceme

nce Deficiancy System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.41	Rating **	U	Issue No.	35				
LM End	2.45	Issue Type +	Ma	Location *	LS				
Earthen Levee				GPS La	atitud	e/Longitude			
Category			Start		End				
Item	Vegetatio	37.9187	'85 °	37.918515°					
пеш	item				17°	-121.321110°			
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_35								
		Comn	nent Cod	de					
V4 : Elderb	perries are	blocking visit	ility and	flood fight	сара	bility.			
Inspector Comment									

No Photos

LM Start	2.44	Rating **	С	Issue No.		36	
LM End	2.47	Issue Type +	Ma	Location *	WS		
Category Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End	
Item Erosion / Bank Caving				37.9186	28°	37.918438°	
пеш				-121.3208	17°	-121.321452°	
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_36						
Comment Code							
E1 : Note and monitor erosion site							

No Photos

E1: Note and monitor erosion site.

Inspector Comment

LM Start	2.45	Rating **	U	Issue No.		80		
LM End	2.45	Issue Type +	Ma	Location *	LS			
Category	evee	GPS Latitude/Longitude						
Calegory			Start		End			
Item	Trim / Thi		37.9184	80°	37.918480°			
item				-121.3211	14°	-121.321114°		
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_80							
		Comn	nent Cod	de				
T1 : Trim t	rees to at I	east five feet	above g	round level				
Inspector Comment								
Untrimmed	Untrimmed tree on landside slope.							



Looking south at untrimmed tree on landward slope.

\*Location

LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown

\*\*Rating

A : Acceptable N : Not Inspected/Rated M : Maintenance Deficiancy

C : Corrected Ob : Design & System Obsolescence

U : Unacceptable A/W : Acceptable but Monitor & Maintain

\*\*Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.47	Rating **	С	Issue No.		160	
LM End	2.48	Issue Type +	Ма	Location *	WS		
Category	Earthen Levee			GPS Latitude/Longitude			
				Start		End	
Item	Erosion / Bank Caving			37.918403°		37.918383°	
				-121.321442°		° -121.321497	
DWR ID DWR_RD0524_01_s _ 2017_160							
Comment Code							
E1 : Note and monitor erosion site.							
Inspector Comment							
Runoff erosion on landside slope							

No Photos

Issue No. Rating \*\* 2.47 Μ 249 LM Start 2.47 Issue Type + Ма Location \* WS LM End Earthen Levee GPS Latitude/Longitude Category Start End Vegetation 37.918386° 37.918386° Item -121.321444 ° -121.321444 ° DWR\_RD0524\_01\_f \_ 2017\_249 DWR ID **Comment Code** V4: Elderberries are blocking visibility and flood fight capability.

No Photos

Inspector Comment

	LM Start	2.49	Rating **	U	Issue No.		37		
	LM End	2.50	Issue Type +	Ма	Location *	LS			
Category	Earthen Levee			GPS Latitude/Longitude					
	Calegory				Start		End		
Item	Vegetation		37.918345°		37.918302	0			
				-121.3217	65°	-121.321923	0		
	DWR ID	DWR_RD0524_01_s _ 2012_37							
Comment Code									
	V4 : Elderberries are blocking visibility and flood fight capability.								

No Photos

Inspector Comment

\* Location

LS: Land Side WS: Water Side

N/A: Not Applicable

A : Acceptable M : Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.50	Rating **	U	Issue No.	38		
LM End	2.50	Issue Type +	Ma	Location *	WS		
Category	evee	GPS La	atitud	e/Longitude			
Category				Start		End	
Item	Vegetation			37.9182	87°	37.918287°	
пеш				-121.321980 °		-121.321980 °	
DWR ID	DWR_RD0	524_01_s _ 201	12_38				
		Comn	nent Cod	de			
V4 : Elderl	perries are	blocking visit	oility and	flood fight	capa	ability.	
		Inspecto	or Comm	nent			

No Photos

LM Start	2.53	Rating **	U	Issue No.		40	
LM End	2.57	Issue Type +	Ma	Location *	LS		
Category	evee	GPS Latitude/Longitude					
Calegory				Start		End	
, Vegetation				37.9180	47°	37.917498°	
Item S				-121.3224	15°	-121.322797°	
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_40						
Comment Code							

No Photos

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment

	LM Start	2.54	Rating **	С	Issue No.		82		
	LM End	2.54	Issue Type +	Ma	Location *	LS			
	Category	GPS Latitude/Longitude							
	Calegory				Start		End		
	Animal Control				37.9179	78°	37.917978	0	
	item				-121.3224	83°	-121.322483	0	
DWR ID DWR_RD0524_01_s _ 2012_82									
	Comment Code								

No Photos

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Landside slope damage from animal digging into levee.

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated Ma: Maintenance Deficiancy Ob: Design & System Obsolescence

C: Corrected Ob: Design & System Obsolescence

U: Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.57	Rating **	С	Issue No.		218		
LM End	2.57	Issue Type +	Ma	Location *	WS			
Category Earthen Levee				GPS La	atitud	le/Longitude		
				Start		End		
Erosion / Bank Caving				37.9174	92°	37.917492°		
item				-121.3227	'95	-121.322795 °		
DWR ID	DWR_RD0	524_01_f _ 201	6_218					
		Comn	nent Cod	de				
E2 : Sched	E2: Schedule repair of erosion site prior to the next inspection.							
	Inspector Comment							

Large trench on waterside shoulder and slope. Trench is 45 x 15 x 5.

No Photos

Rating \*\* Issue No. 2.60 U 185 LM Start 2.64 Issue Type + Ма Location \* WS LM End Earthen Levee GPS Latitude/Longitude Category Start End Trim / Thin Trees 37.917152° 37.916807° Item -121.322582° -121.322069 ° DWR\_RD0524\_01\_s \_ 2014\_185 DWR ID

Comment Code

T2: Thin trees to allow visibility of the ground and room to flood fight.

Inspector Comment



Looking northwest at untrimmed trees on landward slope and toe.

LM Start	2.64	Rating **	U	Issue No.		43	
LM End	2.64	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee	GPS Latitude/Longitude				
Calegory				Start		End	
Item	Vegetation					37.916780	0
пеш				-121.3220	95 °	-121.322095	0
DWR ID	DWR_RD0	524_01_s _ 201	2_43				

Comment Code

V4: Elderberries are blocking visibility and flood fight capability.

Inspector Comment

Dense elderberry on landside shoulder, slope, and toe.

No Photos

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side

CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated Ma: Maintenance Deficiancy

M: Minimally Acceptable C: Corrected Ob: Design & System Obsolescence

U: Unacceptable A/W: Acceptable but Monitor & Maintain

\* Issue Type

Ma: Maintenance Deficiancy

Ob: Design & System Obsolescence

En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.65	Rating **	U	Issue No.		918	
LM End	2.66	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory			Start		End		
Item	Trim / Thi	37.9167	18°	37.916502°			
пеш			-121.3220	20°	-121.321980°		
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_918						
		Comn	nent Cod	de			
T1: Trim t	rees to at I	east five feet	above g	round level.			
		Inspecto	or Comm	nent			
Untrimmed trees on landside slope and toe.							



Looking south at untrimmed trees on landward slope.

LM Start	2.65	Rating **	М	Issue No.		250	
LM End	2.65	Issue Type +	Ma	Location *	WS		
Category	evee	GPS Latitude/Longitude					
Category				Start		End	
Item	Encroach	ments		37.9166	49°	37.916649°	
item				-121.3219	65 °	-121.321965°	
DWR ID	R ID DWR_RD0524_01_f _ 2017_250						
Comment Code							

DE : Debris

Inspector Comment

No Photos

	LM Start	2.70	Rating **	M	Issue No.		264	
	LM End	2.76	Issue Type +	Ма	Location *		LS	
Cotogon Earthen Levee					GPS Latitude/Longitude			
	Category				Start End		End	
	Trim / Thin Trees				37.9159	45°	37.915276	0
	item		-121.322290 °		-121.322808	0		
	DWR ID	DWR_RD0	524_01_s _ 201	2_264				

## Comment Code

T2: Thin trees to allow visibility of the ground and room to flood fight.

### Inspector Comment

Untrimmed trees along landside slope and toe. Additionally, trim over hanging trees at least 12 feet above ground level.

### Photo 1 of 2: FA\_2018\_RD0524\_107\_264\_20180906\_00352.jpg



Looking south at untrimmed trees on landward slope.

* Location		** Rating		+ Issue Type
LS : Land Side N/A	: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.70	Rating **	М	Issue No. 264		264 (cont)	
LM End	2.76	Issue Type +	Ma	Location *	LS		
Category	evee	GPS La	atitud	e/Longitude			
Calegory	Category					End	
Item	Trim / Thi	n Trees		37.9159	45 °	37.915276°	
пеш				-121.3222	90°	-121.322808 °	
DWR ID DWR_RD0524_01_s _ 2012_264							
Comment Code							

T2: Thin trees to allow visibility of the ground and room to flood fight.

### Inspector Comment

Untrimmed trees along landside slope and toe. Additionally, trim over hanging trees at least 12 feet above ground level.

Photo 2 of 2: FA\_2018\_RD0524\_107\_264\_20180906\_00353.jpg



Looking north at dense trees overhanging levee crown.

LM Start	2.75	Rating **	С	Issue No.		152
LM End	2.75	Issue Type +	Ма	Location *		CR
Category	GPS La	titud	e/Longitude			
Calegory	egory					End
Item	Encroach	ments		37.9154	27°	37.915427°
item				-121.3226	91 °	-121.322691 °
DWR ID	DWR_RD0	524_01_s _ 201	8_152			

Comment Code

TR: Tree or limb

### Inspector Comment

Large tree branch across levee crown. Block access to levee.

No Photos

LM Start	2.75	Rating **	М	Issue No.		146	
LM End	2.75	Issue Type +	Ma	Location *	LS		
Category	GPS La	atitud	le/Longitude				
Category				Start E		End	
Item	Encroach	ments		37.9153	58°	37.915358	0
пеш				-121.3227	68°	-121.322768	0
DWR ID DWR_RD0524_01_f _ 2018_146							
		Comn	nent Cod	de			

PR: Prunings

Inspector Comment

No Photos

Location		ı
LS: Land Side	N/A: Not Applicable	ı

WS : Water Side CR : Crown

A : Acceptable M : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.77	Rating **	U	Issue No.		219	
LM End	2.80	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Category				Start		End	
Item	Animal Co	ontrol		37.9151	95°	37.915052°	
пеш				-121.3229	30°	-121.323430 °	
DWR ID	DWR ID DWR_RD0524_01_f _ 2016_219						
		Comn	nent Cod	de			
A1 : Extern	minate rod	ents and back	fill and o	compact or	grou	t burrows.	
		Inspecto	or Comm	nent			
Several large rodent holes on landside slope.							

LM Start	2.77	Rating **	U	Issue No.	219 (cont)
LM End	2 80	Issue Type +	Ma	Location *	1 9

# Photo 1 of 2 : FA\_2018\_RD0524\_107\_219\_20180906\_00287.jpg

Looking south at several rodent holes on landward slope.

Photo 2 of 2: FA\_2018\_RD0524\_107\_219\_20180906\_00288.jpg



Looking at typical rodent hole on waterward slope.

		D-+i: **		Innua Na			
LM Start	2.80	Rating **	U	Issue No.		48	
LM End	2.80	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Category				Start		End	
Item	Vegetatio	n		37.9150	22°	37.915022°	
item				-121.3234	43°	-121.323443 °	
DWR ID	DWR_RD0	524_01_s _ 201	2_48				
		Comn	nent Cod	de			
V4 : Elderl	perries are	blocking visit	ility and	flood fight	сара	ability.	
		Inspecto	or Comm	nent			

No Photos

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.86	Rating **	U	Issue No.		49	
LM End	2.86	Issue Type +	Ma	Location *	LS		
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Vegetatio	n		37.9144	27°	37.914427°	
пеш				-121.3241	98°	-121.324198°	
DWR ID	DWR_RD0	524_01_s _ 201	12_49				
		Comn	nent Cod	de			
V4 : Elderb	perries are	blocking visit	oility and	flood fight	capa	ability.	
	Inspector Comment						
1							

No Photos

LM Start	2.87	Rating **	U	Issue No.		209
LM End	2.87	Issue Type +	Ma	Location *		LS
Catagony	evee	GPS La	atitud	e/Longitude		
Calegory	Category					End
Item	Trim / Thin Trees			37.9142	57°	37.914257°
Rem				-121.3243	17°	-121.324317°
DWR ID	DWR_RD0	524_01_s _ 201	6_209			·

### Comment Code

T1: Trim trees to at least five feet above ground level.

### Inspector Comment

Untrimmed walnut tree on landside slope and toe.

# Photo 1 of 1 : FA\_2018\_RD0524\_107\_209\_20180906\_00275.jpg



Looking northwest at untrimmed tree at landward toe.

LM Start	2.90	Rating **	U	Issue No.		50		
LM End	2.92	Issue Type +	Ma	Location *	LS			
Category	evee	GPS Latitude/Longitude						
Calegory	Category					End		
Item	Encroach	ments	37.9137	67°	37.913486°			
item			-121.3244	27 °	-121.324428°			
DWR ID DWR_RD0524_01_s _ 2012_50								
	Comment Code							

PR: Prunings

Inspector Comment



Looking southwest at prunings on landside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.91	Rating **	U	Issue No.		161			
LM End	2.91	Issue Type +	Ma	Location *		WS			
Category	Earthen L	evee		GPS La	atitud	e/Longitude			
Calegory				Start		End			
Item	Trim / Thi	n Trees		37.9137	'33 °	37.913733°			
пеш				-121.324398°		° -121.324398°			
DWR ID DWR_RD0524_01_s _ 2017_161									
		Comn	nent Cod	de					
T5 : Tree s	stumps.								
		Inspecto	or Comm	nent					



Looking east at large tree stump on waterward shoulder.

LM Start	2.93	Rating **	U	Issue No.		51	
LM End	2.93	Issue Type +	Ma	Location *	LS		
Category Earthen Levee				GPS Latitude/Longitude			
Calegory			Start		End		
Item	Trim / Thi	n Trees		37.9134	15°	37.913389°	
пеш				-121.3245	03 °	-121.324440 °	
DWR ID DWR_RD0524_01_s _ 2012_51							
		Comn	nent Coc	łe			

T1 : Trim trees to at least five feet above ground level.

### Inspector Comment

Untrimmed trees on landside slope and toe.

LM Start	2.93	Rating **	U	Issue No.	51 (cont)
LM End	2.93	Issue Type +	Ma	Location *	LS

# Photo 1 of 2 : FA\_2018\_RD0524\_107\_51\_20180906\_00092.jpg



Looking south at dense trees on landward slope fall 2015

Photo 2 of 2 : FA\_2018\_RD0524\_107\_51\_20180906\_00093.jpg



Looking south at dense trees on landward slope spring 2015

\* Location
LS: Land Side N/A: Not Applicable
WS: Water Side
CR: Crown

\*\* Rating

A: Acceptable
N: Not Inspected/Rated
M: Minimally Acceptable
U: Unacceptable
U: Unacceptable
A: Acceptable
CR: Crown

\*\* Rating

A: Acceptable
N: Not Inspected/Rated
C: Corrected
C: Corrected
A/W: Acceptable but Monitor & Maintain

\*\* Assue Type

Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.96	Rating **	U	Issue No.		71
LM End	2.96	Issue Type +	Ма	Location *		WS
Category				GPS Latitude/Longitude		
Calegory			Start		End	
Item	DWR Erosion Survey			37.9130	10°	37.913010°
item				-121.3244	90°	-121.324490°
DWR ID	RD0524U0	1RM43.52				·

### Inspector Comment

Comment Code

09/13/2017: A new pocket erosion observed at the eroison site, next to an irrigation pipe.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The site was first reported in 2012 spring levee inspection

report. [2017 Site ID:RD0524U01RM43.52]

LM Start	2.96	Rating **	U	Issue No.	71 (cont)
LM End	2.96	Issue Type +	Ma	Location *	WS

# Photo 1 of 4 : FA\_2018\_RD0524\_107\_71\_20180906\_00123.jpg



Front view of the erosion.

### Photo 2 of 4: FA\_2018\_RD0524\_107\_71\_20180906\_00124.jpg



View of the newly developed pocket erosion next to an irrigation pipe.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.96	Rating **	U	Issue No.		71 (cont)	
LM End	2.96	Issue Type +	Ma	Location *	WS		
Category Supplemental				GPS Latitude/Longitude			
				Start		End	
Item	. DWR Erosion Survey				10°	37.913010°	
пеш				-121.3244	90°	-121.324490 °	
DWR ID RD0524U01RM43.52							
Comment Code							

### Inspector Comment

09/13/2017: A new pocket erosion observed at the eroison site, next to an irrigation pipe.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The site was first reported in 2012 spring levee inspection

report. [2017 Site ID:RD0524U01RM43.52]



Photo 3 of 4: FA\_2018\_RD0524\_107\_71\_20180906\_00125.jpg

Close view of the erosion.

Photo 4 of 4: FA\_2018\_RD0524\_107\_71\_20180906\_00126.jpg



Close view of the erosion. Note the new pocket erosion next to the irrigation pipe on the site.

LM Start	2.96	Rating **	U	Issue No.	71 (cont)
LM End	2.96	Issue Type +	Ma	Location *	WS

LS : Land Side N/A: Not Applicable WS: Water Side

A: Acceptable Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.96	Rating **	A/W	Issue No. 227		227		
LM End		Issue Type +	Ma	Location *				
Category	Supplemental				titud	le/Longitude		
Calegory			Start		End			
Item	2017 Stor	m Damage		37.91290	00°		0	
пеш				-121.32440	00°		0	
DWR ID	DWR_RD0	524_01_f _ 201	7_227					
	Comment Code							

### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No:465

Site Designation:LMA-292 Repair Type: Erosion Rating:Area of Concern Field Date:7/26/2017

Notes: Lower priority because erosion is within rip rap, is only present on lower slope and is not too deep. Levee is narrow here.

LM Start	2.96	Rating **	A/W	Issue No.	227 (cont)
LM End		Issue Type +	Ma	Location *	



Photo 2 of 2: LEVAL\_FA\_2018\_465\_2232.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.99	Rating **	A/W	Issue No.		228		
LM End	3.01	Issue Type +	Ма	Location *				
Category	Supplemental				atitud	ude/Longitude		
Calegory				Start		End		
Item	2017 Stor	m Damage		37.9125	00°	37.912300°		
пеш				-121.3247	00°	-121.324700°		
DWR ID	DWR_RD0	DWR_RD0524_01_f _ 2017_228						

### Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:529 Site Designation:LMA-435 Repair Type: Erosion

Rating:Area of Concern Field Date:8/10/2017

Notes:

LM Start	2.99	Rating **	A/W	Issue No.	228 (cont)
LM End	3.01	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL\_FA\_2018\_529\_4188.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	2.99	Rating **	A/W	Issue No.		228 (cont)	
LM End	3.01	Issue Type +	Ma	Location *			
Category	Suppleme	GPS La	atitud	le/Longitude			
Calegory				Start		End	
Item	2017 Stor	m Damage		37.9125	00°	37.912300°	
пеш				-121.3247	00°	-121.324700°	
DWR ID	R ID DWR_RD0524_01_f _ 2017_228						
	Comment Code						

### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:529

Site Designation:LMA-435 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:



LM Start	3.02	Rating **	M	Issue No.		924	
LM End	3.02	Issue Type +	Ma	Location *		LS	
Category	evee	GPS Latitude/Longitude					
Calegory	tegory				Start		
Item	Animal Co	ontrol		37.9121	63°	37.912163 °	
пеш				-121.3247	02 °	-121.324702°	
DWR ID	DWR_RD0	524_01_s _ 201	2_924				

### Comment Code

A2: Repair the levee slope damaged by livestock and prevent large animal access

### Inspector Comment

No Photos

\* Location LS: Land Side WS: Water Side

N/A: Not Applicable

: Acceptable Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected

+ Issue Type A/W : Acceptable but Monitor & Maintain

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.07	Rating **	М	Issue No.		925	
LM End	3.27	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Category				Start		End	
Item	Animal Co	ontrol		37.9113	82°	37.908602°	
пеш				-121.3249	28°	-121.325395 °	
DWR ID DWR_RD0524_01_s _ 2012_925							
		Comn	nent Cod	de			
A1 : Extern	ninate rod	ents and back	fill and o	compact or	grou	t burrows.	
		Inspecto	or Comm	nent			
Several ro	dent holes	on levee slop	es.				

LM Start	3.07	Rating **	М	Issue No.	925 (cont)
LM End	3.27	Issue Type +	Ма	Location *	LS



Looking southwest at the landside slope.

Photo 2 of 3: FA\_2018\_RD0524\_107\_925\_20180906\_00365.jpg



Looking at typical view of rodent hole with this section fall 2015.

LM Start	3.07	Rating **	М	Issue No.	925 (cont)
LM End	3.27	Issue Type +	Ма	Location *	LS



Looking at typical rodent holes on landward slope along this reach.

\*Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable CR: Corrected U: Unacceptable U: Unacceptable U: Unacceptable A/W: Acceptable but Monitor & Maintain Enforcement

\* Issue Type

Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.23	Rating **	A/W	Issue No.		229	
LM End		Issue Type +	Ма	Location *			
Category	Suppleme	ental		GPS Lat	itud	le/Longitude	
Calegory				Start		End	
Item	2017 Stor	m Damage		37.90920	o°		0
пеш				-121.32530	o°		0
DWR ID	DWR ID DWR_RD0524_01_f _ 2017_229						
		Comn	nent Cod	de			

### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No:466

Site Designation:LMA-293 Repair Type: Erosion Rating: Area of Concern Field Date:7/26/2017

Notes: Lower priority because damage is only on the lower 1/5 of slope. The slopes US and DS are rocked. Levee is narrow here.

LM Start	3.23	Rating **	A/W	Issue No.	229 (cont)
LM End		Issue Type +	Ma	Location *	



Photo 2 of 2: LEVAL\_FA\_2018\_466\_2229.jpg



CR : Crown

A: Acceptable Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected

+ Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.26	Rating **	A/W	Issue No.	230			
LM End	3.26	Issue Type +	Ма	Location *				
Category				GPS Latitude/Longitude				
Calegory				Start		End		
Item	2017 Storm Damage			37.90880	00°	37.908700°		
пеш			-121.325400 °		-121.325300°			
DWR ID	DWR_RD0524_01_f _ 2017_230							
	Comment Code							

### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:528

Site Designation:LMA-434 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes: combined with LMA-433

LM Start	3.26	Rating **	A/W	Issue No.	230 (cont)
LM End	3.26	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL\_FA\_2018\_528\_4197.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.26	Rating **	A/W	Issue No.		230 (cont)
LM End	3.26	Issue Type +	Ма	Location *		
Category	Suppleme	ental		GPS La	tituc	le/Longitude
Calegory				Start		End
Item	2017 Stor	m Damage		37.9088	00°	37.908700°
пеш					00°	-121.325300°
DWR ID	DWR_RD0	524_01_f _ 201	7_230			·

### Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:528

Site Designation:LMA-434 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes: combined with LMA-433



LM Start	3.27	Rating **	A/W	Issue No.		231	
LM End	3.28	Issue Type +	Ma	Location *			
Category	Suppleme	ental		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	2017 Stor	m Damage		37.9086	00°	37.908500	0
пеш				-121.3254	00°	-121.325400	0
DWR ID	DWR_RD0	524_01_f _ 201	7_231				
		Comn	nent Coc	le			

### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:527

Site Designation:LMA-433

Repair Type: Erosion Rating:Area of Concern

Field Date:8/10/2017

Notes: combined with LMA-434

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.27	Rating **	М	Issue No.		186	
LM End	3.27	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.9085	51 °	37.908551 °	
item				-121.3253	81°	-121.325381 °	
DWR ID	DWR_RD0	524_01_s _ 201	4_186				
		Comn	nent Cod	de			
T1: Trim t	rees to at I	east five feet	above g	round level.			
		Inspecto	or Comm	nent			

No Photos

LM Start	3.30	Rating **	A/W	Issue No.		232	
LM End		Issue Type +	Ma	Location *			
Category	Suppleme	ental	GPS La	le/Longitude			
Calegory				Start		End	
Item	2017 Stor	m Damage		37.90820	0°		0
item				-121.325300 °			0
DWR ID	DWR_RD0	524_01_f _ 201	7_232				

# Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No:467

Site Designation:LMA-294 Repair Type: Erosion Rating:Area of Concern Field Date:7/26/2017

Notes: It looks like new rip rap was plaved on the lower 1/4 of the

slope. There is a 2-3 ft scarp above the rip rap.



LS: Land Side WS: Water Side

N/A: Not Applicable

A: Acceptable Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.30	Rating **	A/W	Issue No.		232 (cont)	
LM End		Issue Type +	Ма	Location *			
Category Supplemental			GPS La	tituc	le/Longitude		
Calegory				Start		End	
Item	2017 Stor	m Damage		37.90820	00°		0
пеш				-121.32530	00°		0
DWR ID	VR ID DWR_RD0524_01_f _ 2017_232						
	Comment Code						

### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No:467

Site Designation:LMA-294 Repair Type: Erosion Rating:Area of Concern Field Date:7/26/2017

Notes: It looks like new rip rap was plaved on the lower 1/4 of the

slope. There is a 2-3 ft scarp above the rip rap.

LM Start	3.30	Rating **	A/W	Issue No.	232 (cont)
LM End		Issue Type +	Ma	Location *	



Photo 3 of 3: LEVAL\_FA\_2018\_467\_2225.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.30	Rating **	U	Issue No.	79		
LM End	3.32	Issue Type +	Ма	Location *	WS		
Category	ental	GPS Latitude/Longitude					
Calegory						End	
Item	DWR Ero	sion Survey		37.90809	90°	37.908090°	
пеш				-121.32509	00°	-121.325090°	
DWR ID	D RD0524U01RM43.86						
	Comment Code						

# Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: The levee toe seems to have been protected by river rocks and vegetation on site. [2017 Site ID:RD0524U01RM43.86]

LM Start	3.30	Rating **	U	Issue No.	79 (cont)
LM End	3.32	Issue Type +	Ма	Location *	WS

# Photo 1 of 4 : FA\_2018\_RD0524\_107\_79\_20180906\_00136.jpg



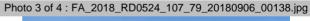
Front View of the erosion.

### Photo 2 of 4: FA\_2018\_RD0524\_107\_79\_20180906\_00137.jpg



Front view of the erosion.

LM Start	3.30	Rating ** U		Issue No.	79 (cont)
LM End	3.32	Issue Type +	Ma	Location *	WS





Close view of the erosion. Note the river rocks and vegetation at the levee toe.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.30	Rating **	U	Issue No. 79 (cont)		
LM End	3.32	Issue Type +	Ma	Location *		WS
Supplemental				GPS La	atitud	e/Longitude
Category				Start		End
Item	DWR Ero	sion Survey		37.9080	90°	37.908090°
пеш				-121.3250	90°	-121.325090 °
DWR ID RD0524U01RM43.86						
Comment Code						

### Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: The levee toe seems to have been protected by river rocks and vegetation on site. [2017 Site ID:RD0524U01RM43.86]



Front View of the erosion.

LM Start	3.30	Rating **	U	Issue No.	926	
LM End	3.37	Issue Type +	Ma	Location *	LS	
Catagory	evee	GPS Latitude/Longitude				
Calegory	Category					End
Item	Trim / Thi	n Trees		37.9081	58°	37.907112°
пеш				-121.3254	18°	-121.325350°
DWR ID DWR_RD0524_01_s _ 2012_926						·
Comment Code						

# T1 : Trim trees to at least five feet above ground level.

### Inspector Comment

LM Start	3.30	Rating **	U	Issue No.	926 (cont)
LM End	3.37	Issue Type +	Ma	Location *	LS

### Photo 1 of 2: FA\_2018\_RD0524\_107\_926\_20180906\_00367.jpg



Looking southwest at dense veg on landward slope.

Photo 2 of 2: FA\_2018\_RD0524\_107\_926\_20180906\_00368.jpg



Looking at untrimmed trees on landward slope and toe.

\*\* Rating
LS: Land Side N/A: Not Applicable
WS: Water Side
CR: Crown

\*\* Rating
A: Acceptable
N: Not Inspected/Rated
N: Not Inspected/Rated
C: Corrected
N: Not Inspected/Rated
C: Corrected
N: Not Inspected/Rated
C: Corrected
N: Minimally Acceptable
C: Corrected
N/W: Acceptable but Monitor & Maintain
En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.37	Rating **	М	Issue No.	53		
LM End	3.37	Issue Type +	Ma	Location *	WS		
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Category				Start		End	
Item	Animal Control			37.9071	32°	37.907132°	
пеш				-121.325352 °		-121.325352°	
DWR ID	DWR_RD0	524_01_s _ 201	2_53				
		Comn	nent Coo	de			
A1 : Extern	A1 : Exterminate rodents and backfill and compact or grout burrows.						
Inspector Comment							

No Photos

LM Start	3.45	Rating **	U	Issue No.		54
LM End	3.45	Issue Type +	Ma	Location *		LS
Earthen Levee				GPS Latitude/Longitude		
Category				Start		End
Item	Trim / Thi	n Trees		37.9062	27°	37.906227°
item	item				83°	-121.324683 °
DWR ID	DWR RD0	524 01 s 201	2 54			

Comment Code

 $\ensuremath{\mathsf{T3}}$  : Trim and thin trees to allow visibility of the ground and room to flood fight.

### Inspector Comment

Dense untrimmed trees on landside slope.

### Photo 1 of 1 : FA\_2018\_RD0524\_107\_54\_20180906\_00095.jpg



Looking northwest at dense vegetation on landside slope.

LM Start	3.48	Rating **	М	Issue No.		177
LM End	3.48	Issue Type +	Ма	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
Calegory				Start		End
Item	Encroach	ments		37.9059	94°	37.905994°
item				-121.32419	94°	-121.324194°
DWR ID	DWR_RD0	524_01_f _ 201	4_177			

Comment Code

TR : Tree or limb

....

Inspector Comment

Dead tree on landside toe.



Looking at dead tree limb at landward toe fall 2015.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

	2.54	Rating **	U	Issue No.		F-7	
LM Start	3.51	Rating	U	Issue No. 57		5/	
LM End	3.59	Issue Type +	Ma	Location *	LS		
Category Earthen Levee			GPS Latitude/Longitude				
Calegory	ategory			Start		End	
Item	Trim / Thin Trees			37.9056	38°	37.904570°	
item				-121.323892 °		-121.324215°	
DWR ID	DWR_RD0	524_01_s _ 201	2_57				
Comment Code							
T3 : Trim and thin trees to allow visibility of the ground and room to							

flood fight.

### Inspector Comment



Looking south at dense trees on landward slope.

LM Start	3.53	Rating **	A/W	Issue No.		233
LM End	3.54	Issue Type +	Ma	Location *		
Category	ental	GPS Latitude/Longitude				
Category				Start		End
Item	2017 Stor	m Damage		37.9053	00°	37.905200°
пеш			-121.3238	00°	-121.323900 °	
DWR ID	DWR_RD0	524_01_f _ 201	7_233			·

# Comment Code

### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:526

Site Designation:LMA-432

Repair Type: Erosion Rating:Area of Concern

Field Date:8/10/2017

Notes:



Location N/A: Not Applicable LS: Land Side WS: Water Side

Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected

+ Issue Type Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En: Enforcement

Page 95 of 129

### Flood Control Project Maintenance Levee Inspections

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.53	Rating **	A/W	Issue No.	233 (cont)	
LM End	3.54	Issue Type +	Ма	Location *		
Category	ental	GPS Latitude/Longitude				
Category				Start		End
Item	2017 Stor	m Damage		37.90530	00°	37.905200°
пеш					00°	-121.323900 °
DWR ID	D DWR_RD0524_01_f _ 2017_233					
Comment Code						

### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:526

Site Designation:LMA-432 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:

LM Start	3.53	Rating **	A/W	Issue No.	233 (cont)
LM End	3.54	Issue Type +	Ма	Location *	



Photo 3 of 3: LEVAL\_FA\_2018\_526\_4203.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.56	Rating **	A/W	Issue No.		234
LM End	3.57	Issue Type +	Ма	Location *		
Category			GPS Latitude/Longitude			
Category	Category			Start		End
Item	2017 Storm Damage			37.90490	00°	37.904800°
пеш			-121.32390	00°	-121.324100 °	
DWR ID	DWR_RD0524_01_f _ 2017_234					
Comment Code						

### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:525

Site Designation:LMA-431 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:

LM Start	3.56	Rating **	A/W	Issue No.	234 (cont)
LM End	3.57	Issue Type +	Ma	Location *	



Photo 2 of 3: LEVAL\_FA\_2018\_525\_4206.jpg



# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.56	Rating **	A/W	Issue No.		234 (cont)
LM End	3.57	Issue Type +	Ма	Location *		
Category	Supplemental			GPS Latitude/Longitude		
Calegory						End
Item	2017 Stor	m Damage		37.9049	00°	37.904800 °
пеш			-121.3239	00°	-121.324100 °	
DWR ID	DWR_RD0	R_RD0524_01_f _ 2017_234				·

### Inspector Comment

Comment Code

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:525

Site Designation:LMA-431 Repair Type: Erosion Rating:Area of Concern Field Date:8/10/2017

Notes:



LM Start	3.62 Rating ** M		M	Issue No.		163	
LM End	3.62	Issue Type +	Ма	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Animal Co	ontrol		37.9043	48°	37.904348	0
пеш				-121.3246	83 °	-121.324683	0
DWR ID DWR_RD0524_01_s _ 2017_163							
Comment Code							

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

No Photos

\* Location

LS : Land Side N/A : Not Applicable

WS : Water Side N/A : Not Applica

\*\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N: Not Inspected/Rated

C : Corrected

+ Issue Type
Ma : Mainte

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.64 Rating ** C			Issue No.		58	
LM End	3.64	Issue Type +	Ма	Location *		WS	
Catagoni	Earthen Levee						le/Longitude
Category	ategory					End	
Item	Slope Sta	bility		37.9041	13 °	37.904113°	
пеш				-121.3250	80°	-121.325080 °	
DWR ID DWR_RD0524_01_s _ 2012_58							
Comment Code							

S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.

Inspector Comment

Landowner cut steps into waterside slope.

4/3/17: Steps washed away slope damage remains.

Photo 1 of 1 : FA\_2018\_RD0524\_107\_251\_20180906\_00340.jpg

No Photos



Looking northwest at the waterside slope.

LM Start	3.67	Rating **	U	Issue No.		251	
LM End	3.67	Issue Type +	Ма	Location *		WS	
Earthen Levee				GPS La	titud	le/Longitude	
Category				Start		End	
Item	Animal Control				76°	37.903776°	
item			-121.3253	23 °	-121.325323°		
DWR ID	DWR_RD0524_01_f _ 2017_251						

### Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

### Inspector Comment

Large rodent holes on both waterside and landside slope.

	LM Start	3.72	Rating **	A/W	Issue No.		252	
	LM End	3.78	Issue Type +	Ma	Location *		CR	
	Category Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End		
	ltem Vegetation			37.9031	20°	37.902527	0	
				-121.3258	46 °	-121.326372	0	
DWR ID DWR_RD0524_01_f _ 2017_252								
	Comment Code							

V2: Remove the wild growth other than native grasses from the levee

slopes.

### Inspector Comment

Contorl vegetation growth on crown.

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR · Crown	U · Unaccentable	A/W · Acceptable but Monitor & Maintain	En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.75	Rating **	U	Issue No.		52	
LM End	3.75	Issue Type +	Ма	Location *		WS	
Category Earthen Levee			GPS La	atitud	e/Longitude		
				Start		End	
Item	Trim / Thin Trees			37.902828°		37.902828°	
item				-121.326170 °		-121.326170 °	
DWR ID	DWR_RD0	524_01_s _ 201	6_52				
		Comn	nent Cod	de			
T1 : Trim trees to at least five feet above ground level.							

Inspector Comment



Looking south at untrimmed tree on landward slope and toe.

LM Start	3.77	Rating **	U	Issue No.		927	
LM End	3.77	Issue Type +	Ma	Location *		LS	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End	
Trim / Thin Trees			37.9026	45°	37.902645°		
пеш			-121.326340 °		-121.326340°		
DWR ID	DWR_RD0524_01_s _ 2012_927						

Comment Code
T1 : Trim trees to at least five feet above ground level.

### Inspector Comment

Untrimmed almond tree on landside slope.

# Photo 1 of 1 : FA\_2018\_RD0524\_107\_927\_20180906\_00369.jpg



Looking southwest at untrimmed tree at landward toe.

LM Start	3.89	Rating **	U	Issue No.	94		
LM End	3.89	Issue Type +	Ma	Location *	WS		
Category Earthen Levee				GPS Latitude/Longitude			
Category				Start		End	
Item	Vegetatio	n		37.9009	40°	37.900940	٥
пеш				-121.3264	14°	-121.326414	٥
DWR ID	DWR_RD0	524_01_s _ 201	2_94				

Comment Code

 $\ensuremath{\mathsf{V2}}$  : Remove the wild growth other than native grasses from the levee slopes.

### Inspector Comment

Remove cactus from waterside slope.

### Photo 1 of 2: FA\_2018\_RD0524\_107\_94\_20180906\_00159.jpg



Looking southeast at cactus on waterward slope fall 2015

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated Ma: Maintenance Deficiancy Ob: Design & System Obsolescence

C: Corrected Ob: Design & System Obsolescence

U: Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	3.89	Rating **	U	Issue No.	ue No. 94 (cont)				
LM End	3.89	Issue Type +	Ма	Location *		WS			
Catagory	Category Earthen Levee						GPS La	atitud	e/Longitude
Calegory			Start		End				
Item	Vegetatio	Vegetation			40°	37.900940°			
iteiii			-121.326414°		-121.326414°				
DWR ID	DWR_RD0	524_01_s _ 201	2_94						
		Comn	nent Cod	de					
\/2 . Domo	wa tha wile	d arouth other	than no	tivo arosso	o fro	m the leves			

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Remove cactus from waterside slope.

Photo 2 of 2: FA\_2018\_RD0524\_107\_94\_20180906\_00160.jpg



Looking southeast at cactus on waterside slope. Fall 2013

LM Start	3.97	Rating **	U	Issue No.		253
LM End	4.02	Issue Type +	Ма	Location *		LS
Category Earthen Levee				GPS Latitude/Longitude		
Calegory				Start		End
Vegetation				37.8997	48°	37.899116°
Item				-121.3265	96°	-121.326905°
DWR ID	DWR_RD0	524_01_f _ 201	7_253			

Comment Code

V2: Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Photo 1 of 1: FA\_2018\_RD0524\_107\_253\_20180906\_00341.jpg



Looking southwest at the landside slope.

LM Start	3.97	Rating **	U	Issue No.		254
LM End	4.03	Issue Type +	Ma	Location *	WS	
Category Earthen Levee				GPS Latitude/Longitude		
Calegory				Start		End
Item	Vegetation			37.8997	18°	37.898945 °
пеш				-121.3266	05°	-121.327003 °
DWR ID	DWR_RD0	524_01_f _ 201	7_254			

Comment Code

V2: Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment



Looking southwest at the waterside slope.

Location

N/A: Not Applicable

LS: Land Side WS: Water Side

: Acceptable : Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence

En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	4.03	Rating **	М	Issue No.	61			
LM End	4.03	Issue Type +	Ма	Location *	LS			
Category Earthen Levee			GPS Latitude/Longitude					
Calegory			Start		End			
Item	Trim / Thi	rim / Thin Trees			25°	37.898925 °		
item			-121.327015 °		-121.327015 °			
DWR ID	DWR_RD0	524_01_s _ 201	2_61					
		Comn	nent Cod	de				
T1 : Trim t	rees to at	east five feet	above g	round level				
	Inspector Comment							



Looking east at untrimmed tree at landward toe.

LM Start	4.10	Rating **	С	Issue No.	108	
LM End	4.15	Issue Type +	Ma	Location *	LS	
Category Earthen Levee				GPS La	titud	le/Longitude
Calegory				Start		End
Item	Slope Stability			37.89803	35°	37.898071 °
item				-121.3274	17°	-121.327806°
DWR ID	DWR_RD0	524_01_s _ 201	2_108			
Comment Code						

S1 : Repair slope instability.

# Inspector Comment

Slope depression is greater than 1" and longer than 200'.

No Photos

LM Start	4.16	Rating **	М	Issue No.	213		
LM End	4.16	Issue Type +	Ма	Location *	LS		
Catagory	Category Earthen Levee				GPS Latitude/Longitude		
Calegory				Start		End	
Item	Encroachments			37.8972	35°	37.897235	0
пеш			-121.3278	65 °	-121.327865	0	
DWR ID	DWR_RD0	524_01_s _ 201	6_213				
Comment Code							

GA: Garbage

### Inspector Comment

Old fence post and concrete and brick rubble on landside slope.



Looking west at old fence post and concrete rubble on landward slope.

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Maintenance Deficiancy Ob: Design & System Obsolescence C: Corrected A/W: Acceptable but Monitor & Maintain

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	4.37	Rating **	М	Issue No.		255
LM End	4.37	Issue Type +	Ма	Location *	LS	
Category Earthen Levee				GPS Latitude/Longitude		
Calegory	Sategory					End
Item	Animal Co	ontrol		37.8944	42°	37.894442°
пеш			-121.3292	38°	-121.329238 °	
DWR ID DWR_RD0524_01_f _ 2017_255						
Comment Code						

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Multiple rodent holes around gate stop post.

Photo 1 of 1: FA\_2018\_RD0524\_107\_111\_20180906\_00174.jpg

No Photos



Looking west at dead tree at landside toe.

No Photos

LM Start	4.38	Rating **	М	Issue No.		111
LM End	4.38	Issue Type +	Ма	Location *		LS
Category	Earthen L	evee	GPS Latitude/Longitude			
Category				Start		End
Item	Encroachments				58°	37.894258°
пеш				-121.3292	47°	-121.329247°
DWR ID	DWR_RD0	524_01_s _ 201	2_111			

Comment Code

TR: Tree or limb

### Inspector Comment

Dead tree at landside toe should be removed from levee toe.

LM Start	4.38	Rating **	M	Issue No.		165	
LM End	4.38	Issue Type +	Ma	Location *	WS		
Category	GPS La	atitud	e/Longitude				
Calegory				Start		End	
Item	Animal Co	ontrol		37.8941	98°	37.894198	0
пеш				-121.3292	72°	-121.329272	0
DWR ID	DWR_RD0	524_01_s _ 201	7_165				

### Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

+ Issue Type

\* Location LS: Land Side WS: Water Side

N/A: Not Applicable

A : Acceptable M : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

Page 102 of 129

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

4.40	Rating **	U	Issue No.		112			
4.52	Issue Type +	Ма	Location *		LS			
Earthen L	evee		GPS La	atitud	le/Longitude			
			Start		End			
Trim / Thi	n Trees		37.8939	33°	37.892347°			
			-121.3291	81 °	-121.328192 °			
DWR ID DWR_RD0524_01_s _ 2012_112								
	Comn	nent Cod	de					
T1 : Trim trees to at least five feet above ground level.								
	Inspecto	or Comm	nent					
Untrimmed trees along landside slope and toe.								
	4.52 Earthen L Trim / Thin DWR_RD0	4.52 Issue Type + Earthen Levee  Trim / Thin Trees  DWR_RD0524_01_s_201  Comn rees to at least five feet  Inspector	4.52 Issue Type + Ma  Earthen Levee  Trim / Thin Trees  DWR_RD0524_01_s _ 2012_112  Comment Coccess to at least five feet above g  Inspector Comment	4.52 Issue Type + Ma Location *  Earthen Levee GPS La  Start  Trim / Thin Trees 37.8939  -121.3291  DWR_RD0524_01_s _ 2012_112  Comment Code  rees to at least five feet above ground level.	4.52 Issue Type + Ma Location *  Earthen Levee GPS Latitud Start  Trim / Thin Trees 37.893933° -121.329181°  DWR_RD0524_01_s _ 2012_112 Comment Code rees to at least five feet above ground level.  Inspector Comment			

4	
	11.30.507

Photo 1 of 3: FA\_2018\_RD0524\_107\_112\_20180906\_00175.jpg

Looking southeast at the landside slope.

# LM Start 4.40 Rating \*\* U Issue No. 112 (cont) LM End 4.52 Issue Type + Ma Location \* LS

Photo 2 of 3: FA\_2018\_RD0524\_107\_112\_20180906\_00176.jpg



Looking southeast at untrimmed tree at landward toe.

LM Start	4.40	Rating **	U	Issue No.	112 (cont)
LM End	4.52	Issue Type +	Ma	Location *	LS



Looking northeast at untrimmed tree on landward slope and toe fall 2015.

\*Location

LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown

\*\*Rating

A : Acceptable N : Not Inspected/Rated M : Maintenance Deficiancy

C : Corrected Ob : Design & System Obsolescence

U : Unacceptable A/W : Acceptable but Monitor & Maintain

\*\*Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	4.42	Rating **	М	Issue No.		199			
LM End	4.42	Issue Type +	Ma	Location *		LS			
Category Earthen Levee				GPS La	atitud	e/Longitude			
Calegory				Start		End			
Item	Encroachi	ments		37.8936	59°	37.893659°			
пеш				-121.3290	92°	-121.329092 °			
DWR ID DWR_RD0524_01_f _ 2015_199									
		Comn	nent Cod	de					
TR : Tree	or limb								
		Inspecto	or Comm	nent					
Remove dead tree from landside toe.									



Looking west at dead tree on landward slope and toe fall 2015.

LM Start	4.52	Rating **	U	Issue No.		102			
LM End	4.52	Issue Type +	Ма	Location *		WS			
Earthen Levee				GPS La	atitud	e/Longitude			
Category				Start		End			
Item	Encroachi	ments		37.8923	83°	37.892383°			
пеш				-121.3281	94°	-121.328194°			
DWR ID DWR_RD0524_01_f _ 2016_102									
	Comment Code								
TR : Tree	or limb								
		l	0						
		Inspecto	or Comm	ient					
Dead tree on waterside slope.									

LM Start	4.52	Rating **	U	Issue No.	102 (cont)
LM End	4.52	Issue Type +	Ma	Location *	WS



Looking southeast at dead tree on waterside slope fall 2015

Photo 2 of 2: FA\_2018\_RD0524\_107\_102\_20180906\_00167.jpg



Looking southeast at dead tree on waterside slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	4.53	Rating **	A/W	Issue No.	90		
LM End	4.54	Issue Type +	Ма	Location *	WS		
Category	ental	GPS Latitude/Longitude					
Calegory	Category					End	
Item	DWR Ero	sion Survey		37.8922	30°	37.892230°	
пеш				-121.3279	30°	-121.327930°	
DWR ID	WR ID RD0524U01RM45.07						
Comment Code							

# Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The erosion is located at the inside of a river bend. Site is covered with broken concrete blocks and other debris. [2017 Site ID:RD0524U01RM45.07]

LM Start	4.53	Rating **	A/W	Issue No.	90 (cont)
LM End	4.54	Issue Type +	Ma	Location *	WS

### Photo 1 of 3: FA\_2018\_RD0524\_107\_90\_20180906\_00152.jpg



Front view of the erosion site.

### Photo 2 of 3: FA\_2018\_RD0524\_107\_90\_20180906\_00153.jpg



Close view of the site.

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	4.53	Rating **	A/W	Issue No. 90 (cont)			
LM End	4.54	Issue Type +	Ма	Location *	WS		
Category	GPS Latitude/Longitude						
Calegory				End			
Item	DWR Ero	sion Survey		37.8922	30°	37.892230 °	
пеш			-121.3279	30°	-121.327930 °		
DWR ID RD0524U01RM45.07							
Comment Code							

### Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The erosion is located at the inside of a river bend. Site is covered with broken concrete blocks and other debris. [2017 Site ID:RD0524U01RM45.07]

Front view of the site. Note the loosely placed concrete blocks at the site.



LM Start	4.53	Rating **	A/W	Issue No.		235	
LM End		Issue Type +	Ma	Location *			
Category			GPS La	tituc	le/Longitude		
Calegory	Category			Start		End	
Item	2017 Stor	m Damage		37.89220	00°		0
item				-121.32800	00°		0
DWR ID DWR_RD0524_01_f _ 2017_235							
Comment Code							

### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee

sections. Site ID No:468

Site Designation:LMA-295

Repair Type: Erosion

Rating:Serious Field Date:7/26/2017

Notes: Serious because erosion is impacting the levee, but there is some slope protection here. Slope is armored with asphalt and concrete rubble. The surrounding slopes are pretty baren, but there is a small bush within the site so it may be older.

Photo 1 of 3: LEVAL\_FA\_2018\_468\_2219.jpg



LS: Land Side N/A: Not Applicable

WS: Water Side

Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated

C : Corrected A/W : Acceptable but Monitor & Maintain

### + Issue Type

Ma: Maintenance Deficiancy Ob : Design & System Obsolescence

En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	4.53	Rating **	A/W	Issue No.		235 (cont)		
LM End		Issue Type +	Ма	Location *				
Category				GPS Latitude/Longitude				
Calegory				Start		End		
Item	2017 Stor	m Damage		37.89220	o°		0	
пеш				-121.32800	o°		0	
DWR ID	DWR_RD0	/R_RD0524_01_f _ 2017_235						
	Comment Code							

### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No:468

Site Designation:LMA-295 Repair Type: Erosion Rating:Serious Field Date:7/26/2017

Notes: Serious because erosion is impacting the levee, but there is some slope protection here. Slope is armored with asphalt and concrete rubble. The surrounding slopes are pretty baren, but there is a small bush within the site so it may be older.

LM Start	4.53	Rating **	A/W	Issue No.	235 (cont)
LM End		Issue Type +	Ma	Location *	



Photo 3 of 3: LEVAL\_FA\_2018\_468\_2221.jpg



N/A: Not Applicable LS: Land Side WS: Water Side

: Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

# Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	4.56	Rating **	С	Issue No.		257		
LM End	4.56	Issue Type +	Ма	Location *	LS			
Category	evee	GPS La	titud	e/Longitude				
Calegory	Category					End		
Item	Animal Control			37.89190	)3°	37.891903°		
пеш				-121.32826	64°	-121.328264°		
DWR ID	DWR ID DWR_RD0524_01_f _ 2017_257							
Comment Code								
A3 : No rodents visible, but rodent burrows visible; need to backfill and								

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Backfilled rodent hole. But no rodent program visible.

Photo 1 of 1 : FA\_2018\_RD0524\_107\_63\_20180906\_00114.jpg

No Photos



Looking south at dense trees on landside slope.

LM Start	4.61	Rating **	U	Issue No.		63
LM End	4.61	Issue Type +	Ma	Location *		LS
Category Earthen Levee				GPS Latitude/Longitude		
Calegory				Start		End
Trim / Thin Trees			37.8912	85°	37.891285°	
пеш				-121.3287	28°	-121.328728°
DWR ID	R ID DWR_RD0524_01_s _ 2012_63					
Comment Code						

Comment Code

T1 : Trim trees to at least five feet above ground level.

Inspector Comment

LM Start	4.63	Rating **	М	Issue No.		259	
LM End	4.63	Issue Type +	Ma	Location *		LS	
Category	GPS Latitude/Longitude						
Calegory				Start		End	
Animal Control				37.8909	87°	37.890987	0
Rem				-121.3289	56°	-121.328956	0
DWR ID DWR_RD0524_01_f _ 2017_259							
Comment Code							

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	4.63	Rating **	М	Issue No.		113	
LM End	4.63	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.8909	73 °	37.890973°	
пеш				-121.3289	70°	-121.328970 °	
DWR ID	DWR_RD0	524_01_s _ 201	2_113				
		Comn	nent Cod	de			
T1 : Trim t	rees to at I	east five feet	above g	round level.			
		Inspecto	or Comm	nent			



Looking north at dense trees on landside slope.

LM Start	4.70	Rating **	U	Issue No.		67	
LM End	4.70	Issue Type +	Ma	Location *		LS	
Category	evee	GPS Latitude/Longitude					
Calegory		Start		End			
Item	Trim / Thin Trees				08°	37.890108°	
пеш				-121.3295	23°	-121.329523 °	
DWR ID	D DWR_RD0524_01_s _ 2012_67						
	Comment Code						

T1 : Trim trees to at least five feet above ground level.

#### Inspector Comment

Fig tree at landside toe.

## Photo 1 of 1 : FA\_2018\_RD0524\_107\_67\_20180906\_00116.jpg



Looking northwest at untrimmed tree on landward slope.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	4.76	Rating **	A/W	Issue No.	236		
LM End	4.76	Issue Type +	Ма	Location *			
Category	ental	GPS La	tituc	le/Longitude			
Calegory			Start		End		
Item	2017 Stor	m Damage		37.8893	00°	37.889300°	
пеш				-121.32980	00°	-121.329800 °	
DWR ID	DWR_RD0524_01_f _ 2017_236						
	Comment Code						

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:523

Site Designation:LMA-429 Repair Type: Erosion Rating:Area of Concern Field Date:8/15/2017

Notes:

LM Start	4.76	Rating **	A/W	Issue No.	236 (cont)
LM End	4.76	Issue Type +	Ма	Location *	



Photo 2 of 3: LEVAL\_FA\_2018\_523\_4218.jpg



## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	4.76	Rating **	A/W	Issue No.	236 (cont)		
LM End	4.76	Issue Type +	Ma	Location *			
Category	ental	GPS La	titud	e/Longitude			
Calegory				Start		End	
Item	2017 Stor	m Damage		37.8893	00°	37.889300°	
пеш				-121.3298	00°	-121.329800°	
DWR ID	DWR_RD0524_01_f _ 2017_236						
	Comment Code						

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:523

Site Designation:LMA-429 Repair Type: Erosion Rating:Area of Concern Field Date:8/15/2017

Notes:



LM Start	4.90	Rating **	U	Issue No.		84	
LM End	4.93	Issue Type +	Ма	Location *		LS	
Category Earthen Levee				GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.8876	13°	37.887258°	
item				-121.3311	61 °	-121.331596°	
DWR ID DWR_RD0524_01_s _ 2012_84							

#### Comment Code

T1: Trim trees to at least five feet above ground level.

#### Inspector Comment

Untrimmed trees on landside slope.

#### Photo 1 of 1 : FA\_2018\_RD0524\_107\_84\_20180906\_00148.jpg



Looking west at untrimmed tree on landward slope.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	4.96	Rating **	U	Issue No.		114	
LM End	4.98	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Vegetatio	n		37.8869	48 °	37.886672°	
пеш				-121.3318	34°	-121.331962°	
DWR ID	DWR_RD0	524_01_s _ 201	2_114				
		Comn	nent Coc	de			
V4 : Elderb	perries are	blocking visit	ility and	flood fight	сара	ability.	
Inspector Comment							
Dense elderberry on landside slope.							

No Photos

LM Start	5.00	Rating **	М	Issue No.		260	
LM End	5.00	Issue Type +	Ма	Location *		LS	
Category	Earthen L	evee		GPS Latitude/Longitud			
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.8863	67°	37.886367°	
пеш				-121.3320	47°	-121.332047°	
DWR ID	DWR_RD0	NR_RD0524_01_f _ 2017_260					

#### Comment Code

T4: Trim trees over roadway to at least 12 feet above ground level.

#### Inspector Comment

Photo 1 of 1: FA\_2018\_RD0524\_107\_260\_20180906\_00345.jpg



Looking southwest at the landside slope.

LM Start	5.05	Rating **	U	Issue No.		188	
LM End	5.07	Issue Type +	Ма	Location *		LS	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory	Category			Start		End	
Item	Trim / Thi	n Trees		37.88567	3°	37.885315°	
пеш				-121.33212	2 °	-121.332139°	
DWR ID DWR_RD0524_01_s _ 2014_188							
		Cama	ant Car	ام			

T1: Trim trees to at least five feet above ground level.

#### Inspector Comment

Untrimmed trees on landside slope and toe.



Looking south at oleander on landward slope.

Location

N/A: Not Applicable

LS: Land Side WS: Water Side

A : Acceptable M : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

A/W : Acceptable but Monitor & Maintain En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.07	Rating **	U	Issue No.		68
LM End	5.07	Issue Type +	Ma	Location *		LS
Earthen Levee				GPS La	atitud	e/Longitude
Category				Start		End
Item	Trim / Thi	n Trees		37.8854	00°	37.885400°
пеш				-121.332153 °		-121.332153°
DWR ID	DWR_RD0	524_01_s _ 201	2_68			
		Comn	nent Cod	de		
T4 : Trim t	rees over	oadway to at	least 12	feet above	grou	ınd level.
		Inspecto	or Comm	nent		



Looking south at overhanging trees.

LM Start	5.08	Rating **	U	Issue No.		261	
LM End	5.13	Issue Type +	Ma	Location *	WS		
Category	evee	GPS Latitude/Longitude					
Calegory				Start		End	
Item	Vegetation				06 °	37.884465°	
пеш			-121.332159°		-121.332134°		
DWR ID DWR_RD0524_01_f _ 2017_261							
		Cama	ant Car	ام			

Comment Code
V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment



Looking south at the waterside slope.

LM Start	5.12	Rating **	U	Issue No.		266
LM End	5.16	Issue Type +	Ма	Location *		LS
Category	evee	GPS Latitude/Longitude				
Calegory			Start		End	
Trim / Thin Trees				37.8846	08°	37.884023°
item			-121.3321	53°	-121.332100 °	
DWR ID DWR_RD0524_01_f _ 2017_266						
		Comp	ant Coo	lo.		

T1 : Trim trees to at least five feet above ground level.

Inspector Comment



Looking south at the landside slope.

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Maintenance Deficiancy Ob: Design & System Obsolescence U: Unacceptable A/W: Acceptable but Monitor & Maintain

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

					_	
LM Start	5.19	Rating **	М	Issue No.		115
LM End	5.19	Issue Type +	Ma	Location *		LS
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Calegory				Start		End
Item	Slope Sta	Slope Stability			87°	37.883587°
item			-121.332100 °		-121.332100°	
DWR ID	DWR_RD0	524_01_s _ 201	2_115			
		Comn	nent Cod	de		
S3 : Repai access wh		slope damag lle.	ed by ve	ehicle traffic	and	I prevent
Inspector Comment						
Vehicle tra	ffic create	d a ramp on la	andside :	slope.		



Looking northwest at slope damage on landward slope.

LM Start	5.22	Rating **	M	Issue No.		116	
LM End	5.22	Issue Type +	Ma	Location *		WS	
Cotogon Earthen Levee				GPS Latitude/Longitude			
Calegory	Category					End	
Item	Encroachments			37.8831	70°	37.883170°	
item				-121.3322	27°	-121.332227°	
DWR ID	DWR_RD0	524_01_s _ 201	2_116			·	

Comment Code

TR: Tree or limb

Inspector Comment

Dead tree limbs on waterside slope.

No Photos

LM Start	5.28	Rating **	U	Issue No.		85		
LM End	5.34	Issue Type +	Ma	Location *	LS			
Category Earthen Levee				GPS Latitude/Longitude				
Calegory				Start		End		
Trim / Thin Trees			37.8823	63°	37.881511	0		
item				-121.3325	77°	-121.332777	0	
DWR ID	DWR_RD0	524_01_s _ 201	2_85					
Comment Code								

T1: Trim trees to at least five feet above ground level.

Inspector Comment



Looking south at untrimmed trees on landward slope.

Location + Issue Type LS: Land Side N/A: Not Applicable A : Acceptable M : Minimally Acceptable N: Not Inspected/Rated WS: Water Side C : Corrected

U : Unacceptable

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.35	Rating **	A/W	Issue No.	268		
LM End	5.37	Issue Type +	Ma	Location *	WS		
Category	evee		GPS La	atitud	e/Longitude		
Calegory				Start		End	
Item	Vegetation			37.8814	15 °	37.881131°	
пеш			-121.332795 °		-121.332814°		
DWR ID	DWR_RD0	524_01_f _ 201	7_268				
		Comn	nent Cod	de			
V2 : Remove the wild growth other than native grasses from the levee slopes.							
		Inspecto	or Comm	nent			

No Photos

LM Start	5.38	Rating **	U	Issue No.		932	
LM End	5.41	Issue Type +	Ма	Location *		LS	
Category Earthen Levee				GPS Latitude/Longitude			
Category				Start		End	
Item	Trim / Thi	n Trees		37.8809	45 °	37.880522°	
пеш				-121.3328	37°	-121.332918°	
DWR ID	DWR_RD0	524_01_s _ 201	2_932				

#### Comment Code

T1 : Trim trees to at least five feet above ground level.

#### Inspector Comment

Photo 1 of 1 : FA\_2018\_RD0524\_107\_932\_20180906\_00370.jpg



Looking south at untrimmed trees on landward slope and toe.

LM Start	5.39	Rating **	M	Issue No.	178				
LM End	5.39	Issue Type +	Ma	Location *	LS				
Category	Cotogon Earthen Levee				GPS Latitude/Longitude				
Calegory				Start End					
Item	Encroach	ments		37.88080	6°	37.880806°			
item				-121.33283	3°	-121.332833°			
DWR ID DWR_RD0524_01_f _ 2014_178						·			
Comment Code									

TR: Tree or limb

#### Inspector Comment

Downed tree on landside toe.



Looking south at downed tree on landward slope.

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Maintenance Deficiancy Ob: Design & System Obsolescence U: Unacceptable A/W: Acceptable but Monitor & Maintain

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Maintenance Deficiancy Ob: Design & System Obsolescence En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.41	Rating **	U	Issue No.		962
LM End	5.41	Issue Type +	Ma	Location *		
Supplemental				GPS Latitude/Longitude		
Category				Start		End
Item	DWR UCI	P LMA Respo	onsibility	37.88058	4 °	37.880584°
пеш		-121.33290	11 °	-121.332901 °		
DWR ID	20630					

## Inspector Comment

Comment Code

FS\_ID:53358 DS\_ID:20630 EP\_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: 10/2/2018 Same as last inspection. Holes present in pipe pose a potential threat to levee's internal integrity. Recommend video inspection (D. Sanoski - DWR UCIP).11/16/2016 same as previous inspection hole in pipe is still pressent on WS near toe. This pipe does not appear to be in use. Need to contact owner to determine status of crossing. If the crossing is abandoned or still in use, owner will need to coordinate with the CVFPB to comply with Title 23 requirements. (O. Magana - DWR UCIP)08/23/2013 flap gate damage and does not work at WS toe. Large hole in pipe at WS toe. Pipe appears abandoned and should be done so properly. (W. Wylie - DWR UCIP)

FIELD\_STRUCT\_DESC: \*ABANDONED\* 1 of 2: 12-inch steel irrigation pipe through the levee, 6 feet below the crown. Pump located on the waterside (WS), no pump found in 2013. Flap gate located on the WS end. [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin O&M Manual 7, April 1964, (HLM 5.48) 10-inch pipe listed, Drawing No. 07-04-1490, Sheet 1490/4, (Station 8+01.3)]. FS Date: 10/2/2018 1:34:00 PM

LM Start	5.41	Rating **	U	Issue No.	962 (cont)
LM End	5.41	Issue Type +	Ma	Location *	



Pipe visible on WS slope.

### Photo 2 of 3: UCIP\_FA\_2018\_53358\_30688.jpg



Vent on pipe on WS slope. Possible slurry standpipe that has not yet been used.

\* Location
LS: Land Side N/A: Not Applicable
WS: Water Side
CR: Crown

\*\* Rating

A: Acceptable
N: Not Inspected/Rated
M: Minimally Acceptable
U: Unacceptable
U: Unacceptable
A: Acceptable
U: Unacceptable
A: N: Not Inspected/Rated
C: Corrected
C: Corrected
A/W: Acceptable but Monitor & Maintain

\*\* Issue Type
Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.41	Rating **	U	Issue No.	962 (cont)		
LM End	5.41	Issue Type +	Ма	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory				Start End			
Item	DWR UCI	P LMA Respo	nsibility	37.88058	34 °	37.880584°	
пеш			-121.33290	)1 °	-121.332901 °		
DWR ID	20630						
Comment Code							

## Inspector Comment

FS\_ID:53358 DS\_ID:20630 EP\_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: 10/2/2018 Same as last inspection. Holes present in pipe pose a potential threat to levee's internal integrity. Recommend video inspection (D. Sanoski - DWR UCIP).11/16/2016 same as previous inspection hole in pipe is still pressent on WS near toe. This pipe does not appear to be in use. Need to contact owner to determine status of crossing. If the crossing is abandoned or still in use, owner will need to coordinate with the CVFPB to comply with Title 23 requirements. (O. Magana - DWR UCIP)08/23/2013 flap gate damage and does not work at WS toe. Large hole in pipe at WS toe. Pipe appears abandoned and should be done so properly. (W. Wylie - DWR UCIP)

FIELD\_STRUCT\_DESC: \*ABANDONED\* 1 of 2: 12-inch steel irrigation pipe through the levee, 6 feet below the crown. Pump located on the waterside (WS), no pump found in 2013. Flap gate located on the WS end. [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin O&M Manual 7, April 1964, (HLM 5.48) 10-inch pipe listed, Drawing No. 07-04-1490, Sheet 1490/4, (Station 8+01.3)]. FS Date: 10/2/2018 1:34:00 PM



Broken flap gate at WS toe.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.42	Rating **	М	Issue No.	963		
LM End	5.42	Issue Type +	Ma	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory						End	
Item	DWR UC	IP LMA Respo	nsibility	37.8803	58°	37.880358°	
пеш				-121.3329	72 °	-121.332972°	
DWR ID	20631						
Comment Code							

#### Inspector Comment

FS\_ID:18348 DS\_ID:20631 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Recent work being done on WS slope. Pipe may still

be in use.

FIELD\_STRUCT\_DESC: 10-inch steel drainage pipe through the levee, 6 feet below the crown. Pump not found on the landside (LS). [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin

O&M Manual 7, April 1964, (HLM 5.50)].

FS Date: 8/23/2013

LM Start	5.42	Rating **	М	Issue No.	963 (cont)
LM End	5.42	Issue Type +	Ma	Location *	



10-inch pipe debris on the WS slope.

Photo 2 of 3: UCIP\_FA\_2018\_18348\_30705.jpg



8-inch pipe sleeved through 10-inch pipe with vent on WS slope.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.42	Rating **	М	Issue No.	963 (cont)		
LM End	5.42	Issue Type +	Ма	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory				Start End			
Item	DWR UC	P LMA Respo	nsibility	37.8803	58°	37.880358°	
пеш			-121.3329	72 °	-121.332972°		
DWR ID	20631						
Comment Code							

## Inspector Comment

FS\_ID:18348 DS\_ID:20631 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Recent work being done on WS slope. Pipe may still

be in use.

FIELD\_STRUCT\_DESC: 10-inch steel drainage pipe through the levee, 6 feet below the crown. Pump not found on the landside (LS). [Additional Reference(s): DWR Levee Log, 2004. USACE San Joaquin

O&M Manual 7, April 1964, (HLM 5.50)].

FS Date: 8/23/2013



No flap gate on end of pipe at WS toe.

LM Start	5.42	Rating **	С	Issue No.	118		
LM End	5.42	Issue Type +	Ma	Location *	LS		
Category Earthen Levee			GPS Latitude/Longitude				
Category				Start		End	
Slope Stability				37.880323°		37.880323°	
item				-121.332968 °		-121.332968 °	
DWR ID	DWR_RD0	524_01_s _ 201	2_118				
		Comn	nent Coo	de			
S1 : Repai	S1 : Repair slope instability.						
	Inspector Comment						

Slope damage caused by human activity.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.44	Rating **	U	Issue No.		73	
LM End	5.44	Issue Type +	Ма	Location *		LS	
0-1	Earthen L	GPS La	atitud	e/Longitude			
Category			Start		End		
Item	Trim / Thi	n Trees	37.8800	85 °	37.880085 °		
item			-121.333045 °		-121.333045 °		
DWR ID	DWR_RD0	DWR_RD0524_01_s _ 2012_73					
		Comn	nent Cod	de			
T1: Trim t	rees to at I	east five feet	above g	round level			
			_				
		Inspecto	or Comm	nent			
Untrimmed	d trees on l	andside slope	€.				



Looking southwest at large untrimmed tree on landward slope.

LM Start	5.53	Rating **	М	Issue No.	92		
LM End	5.53	Issue Type +	Ma	Location *	WS		
Catagony	Suppleme		GPS Latitude/Longitude				
Category			Start		End		
Item	DWR Erosion Survey			37.87892	0°	37.878920°	
item			-121.33267	° 0	-121.332670 °		
DWR ID	RD0524U01RM46.06						
Comment Code							

#### Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed. 06/19/2014: No significant change observed.

08/13/2013: Larger trees are at the levee shoulder, and an irrigation

pump station is next to the erosion site. [2017 Site

ID:RD0524U01RM46.06]

#### Photo 1 of 2: FA\_2018\_RD0524\_107\_92\_20180906\_00155.jpg



Front view of the erosion.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.53	Rating **	М	Issue No. 92 (cont)		92 (cont)
LM End	5.53	Issue Type +	Ma	Location *	cation * WS	
Category	Suppleme	GPS Latitude/Longitude				
Calegory				Start		End
Item	DWR Erosion Survey			37.8789	20°	37.878920°
пеш				-121.3326	70°	-121.332670 °
DWR ID	RD0524U01RM46.06					
Comment Code						

#### Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: Larger trees are at the levee shoulder, and an irrigation

pump station is next to the erosion site. [2017 Site

ID:RD0524U01RM46.06]



Close view of the site.

	LM Start	5.58	Rating **	С	Issue No.	167			
	LM End	5.58	Issue Type +	Ма	Location *	LS			
	Category	Earthen Levee			GPS Latitude/Longitude				
	Category				Start		End		
	Item	Slope Stability			37.87811	5 °	37.878115	0	
					-121.33276	3°	-121.332763	0	
	DWR ID	DWR_RD0	524_01_s _ 201	7_167					
	Commont Codo								

Comment Code

S3: Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comment

Slope damage caused by vehicle traffic.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.63			Issue No.		168
LM End	5.63	Issue Type +	Ма	Location *	LS	
Catagony	Earthen L	GPS Latitude/Longitude				
Category				Start		End
ltom	Slope Stability			37.8775	27°	37.877527°
Item				-121.33238	35 °	-121.332385°
DWR ID	DWR_RD0524_01_s _ 2017_168					

Comment Code

S3: Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comment

Slope damage on landside slope.

Rating \*\* С Issue No. 5.64 LM Start 215 Issue Type + Location \* LS LM End 5.64 Ma Earthen Levee GPS Latitude/Longitude Category Start Fnd Slope Stability 37.877378° 37.877378° Item -121.332343 ° -121.332343° DWR\_RD0524\_01\_s \_ 2016\_215 DWR ID

Comment Code

S1: Repair slope instability.

#### Inspector Comment

Levee slope damage is due vehicle traffic and foot traffic. Vehicle traffic created a ramp on landside slope.

Rating \*\* Issue No. С LM Start 5.64 69 5.80 Issue Type + Ma Location \* LS LM End Earthen Levee GPS Latitude/Longitude Category Start End

37.877298°

-121.332343 °

DWR ID DWR\_RD0524\_01\_s \_ 2012\_69

**Animal Control** 

#### Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

District has grouted rodent holes, but rodents are still present. District backfilled rodent holes no visible rodent program.

No Photos

No Photos

No Photos

\* Location

Item

N/A: Not Applicable

LS: Land Side WS: Water Side

A : Acceptable M : Minimally A Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated

37.875073°

-121.333168°

C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma: Maintenance Deficiancy Ob : Design & System Obsolescence

En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.64	Rating **	М	Issue No. 117			
LM End	5.64	Issue Type +	Ма	Location *	LS		
Category	Earthen L	GPS Latitude/Longitude					
Calegory				Start		End	
	Trim / Thin Trees			37.8772	72 °	37.877272°	
Item				-121.3324	00°	-121.332400 °	
DWR ID	DWR_RD0	3_117		·			
Comment Code							

T1 : Trim trees to at least five feet above ground level.

Inspector Comment



Looking northwest at untrimmed tree on landward slope.

LM Start	<b>5.76</b> Rating ** A/		A/W	Issue No.		271
LM End	5.76	Issue Type +	Ma	Location *		WS
Catagony	Earthen L	evee		GPS La	atitud	e/Longitude
Category			Start		End	
Item	Animal Co	ontrol		37.8756	31 °	37.875631 °
пеш			-121.3329	07°	-121.332907°	
DWR ID	DWR_RD0524_01_f _ 2017_271					

#### Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment



Looking east at the waterside slope.

LM	Start	5.77	Rating **	A/W	Issue No.		197	
LM	End	5.79	Issue Type +	Ма	Location *		LS	
Cat	ogon/	Earthen L	evee		GPS La	atitud	e/Longitude	
Cal	Category				Start		End	
l+	em	Animal Co	ontrol		37.8755	45°	37.875310	0
пеш				-121.3329	52°	-121.333065	0	
DW	/R ID	DWR RD0	524 01 s 201	5 197				

#### Comment Code

A1: Exterminate rodents and backfill and compact or grout burrows.

#### Inspector Comment

Several rodent holes on landside slope and levee crown. Backfilled hole but no rodent progam visible.

#### Photo 1 of 2: FA\_2018\_RD0524\_107\_197\_20180906\_00259.jpg



Looking north at typical view of rodent holes on landward slope.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.77	Rating **	A/W	Issue No.		197 (cont)	
LM End	5.79	Issue Type +	Ма	Location *	LS		
Catagon Earthen Levee				GPS Latitude/Longitude			
Category				Start		End	
Item	Animal Co	ontrol		37.8755	45°	37.875310°	
item				-121.3329	52°	-121.333065 °	
DWR ID DWR_RD0524_01_s _ 2015_197							

Comment Code A1: Exterminate rodents and backfill and compact or grout burrows.

### Inspector Comment

Several rodent holes on landside slope and levee crown. Backfilled hole but no rodent progam visible.



Looking southwest at typical view of rodent hole at landward shoulder.

LM Start	5.81	Rating **	С	Issue No.	183		
LM End	5.81	Issue Type +	Ma	Location *	WS		
Category	Earthen L		GPS Latitude/Longitude				
Calegory			Start		End		
Item	Erosion / Bank Caving			37.8749	73°	37.874973°	
пеш				-121.3332	27°	-121.333227°	
DWR ID DWR_RD0524_01_s _ 2017_183							
Comment Code							

E2: Schedule repair of erosion site prior to the next inspection.

#### Inspector Comment

Bank caving on waterside around pipe structure.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.86	Rating **	U	Issue No.	93		
LM End	5.86	Issue Type +	Ма	Location *	WS		
Category				GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR Ero	sion Survey		37.8743	70°	37.874370°	
пеш			-121.3328	50°	-121.332850 °		
DWR ID RD0524U01RM46.39							
Comment Code							

#### Inspector Comment

09/13/2017: No significant change observed.

07/25/2016: No significant change observed.

06/24/2015: No significant change observed.

06/19/2014: No significant change observed.

08/13/2013: No significant change observed.

08/07/2012: The erosion is near a water-intake structure. Pipe leakage likely caused the erosion. [2017 Site ID:RD0524U01RM46.39]

LM Start	5.86	Rating **	U	Issue No.	93 (cont)
LM End	5.86	Issue Type +	Ma	Location *	WS

# Photo 1 of 2: FA\_2018\_RD0524\_107\_93\_20180906\_00157.jpg



Front view of the site.

#### Photo 2 of 2: FA 2018 RD0524 107 93 20180906 00158.jpg



View of the erosion.

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.86	Rating **	М	Issue No.		75		
LM End	5.88	Issue Type +	Ma	Location *	WS			
Category	Earthen L	evee		GPS La	atitud	e/Longitude		
Calegory				Start		End		
Item	Animal Co	ontrol		37.8742	40°	37.874002°		
iteiii	-121.333187 ° -121.333					-121.333027°		
DWR ID DWR_RD0524_01_s _ 2012_75								
		Comn	nent Cod	de				
A1 : Exterr	minate rod	ents and back	fill and o	compact or	grou	t burrows.		
		Inspecto	or Comm	nent				
District has grouted rodent holes, but other rodent holes have appeared. Active rodents in area.								

LM Start	5.86	Rating **	М	Issue No.	75 (cont)
I M End	5.88	Issue Type +	Ma	Location *	WS



Looking southwest at typical rodent holes on waterward slope.

Photo 2 of 2: FA\_2018\_RD0524\_107\_75\_20180906\_00132.jpg



Looking typical view of several rodent holes on landward slope and toe.

LM Start	5.87	Rating **	С	Issue No.		74			
LM End	5.87	Issue Type +	Ма	Location *		WS			
Category Earthen Levee				GPS La	atitud	le/Longitude			
Calegory				Start		End			
Item	Erosion / I	Bank Caving		37.8742	37.874202° 3				
item				-121.3331	197° -121.333153				
DWR ID	DWR ID DWR_RD0524_01_s _ 2012_74								
		Comn	nent Cod	de					
E1 : Note a	and monito	or erosion site							
		Inspecto	or Comm	nent					
Erosion or	Erosion on landside slope around intake pipe.								

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	5.87	Rating **	М	Issue No.		273	
LM End	5.87	Issue Type +	Ма	Location *		WS	
Category	Earthen L	arthen Levee			atitud	le/Longitude	
Calegory				Start End			
Item	Animal Co	ontrol		37.8741	96°	37.874196°	
пеш				-121.333195 ° -121.33319			
DWR ID	DWR ID DWR_RD0524_01_f _ 2017_273						
	Comment Code						

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

No Photos

LM Start	5.87	Rating **	М	Issue No.		98		
LM End	5.87	Issue Type +	Ma	Location *		LS		
Category	Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End		
Item	Trim / Thi	n Trees	37.8740	85 °	37.874085 °			
item				-121.3331	54°	-121.333154°		
DWR ID	WR ID DWR_RD0524_01_s _ 2012_98							

#### Comment Code

T1: Trim trees to at least five feet above ground level.

#### Inspector Comment

Untrimmed walnut tree on landside slope.

#### Photo 1 of 1: FA\_2018\_RD0524\_107\_98\_20180906\_00164.jpg



Looking west at walnut tree on landward slope.

LM Start	5.89	Rating **	С	Issue No.		119	
LM End	5.89	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Slope Sta	bility		37.8738	93°	37.873893	0
item				-121.3329	78°	-121.332978	0
DWR ID	DWR_RD0	524_01_s _ 201	2_119				

Comment Code

S3: Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comment

Landowner is using damaged area as a ramp.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

LM Start	6.08	Rating **	М	Issue No.	272		
LM End	6.08	Issue Type +	Ма	Location *	LS		
Earthen Levee			GPS La	titud	e/Longitude		
Calegory	Category			Start		End	
ltom	Animal Co	ontrol		37.87212	21 °	37.872121 °	
ltem				-121.33056	88°	-121.330568°	
DWR ID DWR_RD0524_01_f _ 2017_272						·	
	Comment Code						

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

No Photos

LM Start	6.08	Rating **	М	Issue No.		147		
LM End	6.08	Issue Type + Ma Location *			LS			
Category	Catagoria Earthen Levee				GPS Latitude/Longitude			
Calegory	Category					End		
Item	Erosion /	osion / Bank Caving			17°	37.872017°		
item				-121.3304	87°	-121.330487°		
DWR ID	DWR_RD0	524_01_f _ 201	8_147					

## Comment Code

E1: Note and monitor erosion site.

#### Inspector Comment

Erosion around and near pipe on landward slope.

#### Photo 1 of 1: FA\_2018\_RD0524\_107\_147\_20180919\_00481.jpg



Looking at landward erosion. (Fall 2018)

Photo 1 of 2: FA\_2018\_RD0524\_107\_81\_20180906\_00141.jpg

LM Start	6.15	Rating **	М	Issue No.		81	
LM End	6.15	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Encroach	ments		37.8710	97°	37.871097	٥
пеш				-121.3301	00°	-121.330100	٥
DWR ID	DWR_RD0	524_01_s _ 201	5_81				

Comment Code

TR: Tree or limb

Inspector Comment

Fallen tree branches and limbs on landside slope.



Looking west at tree branches and limbs left on landward shoulder and slope. (Spirng 2016)

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

## Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.20	09/11/2018 09/11/2018	Richard Willoughby

I M Stort	6.15	Rating **	М	Issue No.		81 (cont)		
LM Start						. ,		
LM End	6.15	Issue Type +	Ма	Location *		LS		
Category	Earthen L	evee		GPS La	atitud	le/Longitude		
Category				Start		End		
Item	Encroachi	ments		37.8710	97°	37.871097°		
пеш				-121.3301	00°	-121.330100 °		
DWR ID DWR_RD0524_01_s _ 2015_81								
	Comment Code							
TR : Tree or limb								
		Inspecto	or Comm	nent				
Fallen tree branches and limbs on landside slope.								
'								



Looking south at tree branches and limbs left on landward shoulder and slope. (Spring 2016)